

REVIEW OF EDUCATIONAL RESEARCH

*Official Publication of the American Educational Research Association,
a department of the National Education Association.*

The contents of the REVIEW are listed in the EDUCATION INDEX.

Volume VIII**April 1938****Number 2**

FINANCE AND BUSINESS ADMINISTRATION

Reviews the literature from December 1934 to December 1937

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INTRODUCTION

THIS NUMBER of the *Review of Educational Research* represents the third cycle of treatment of finance and business administration. I have served upon all three of the committees dealing with this subject and regard this as my last time.

Administrators, or persons dealing with administrative functions, are likely to be placed upon this reviewing committee. I am always conscious myself of a sort of forced failure to do so thorough a job as I should like. For this lack of refinement I am prone to blame those continuous jobs that come down so uncompromisingly upon the heads of persons concerned with administrative functions.

The material of a research nature reviewed herein covers in general the period from December 1934 to December 1937. This number differs extensively from the previous cycle number in the organization of chapters. In the present number we have also urged ourselves, whenever we could remember the stimulant, to jump across into the general field of public administration and public finance in order that we might review studies there that have an increasing applicability to education.

I wish to express my great appreciation to the members of the committee for their contributions, rendered so often at sacrifice; and to Dr. Cornell and Dr. Schmidt for significant assistance in the preparation of reviews and in organizing the number.

ALFRED D. SIMPSON, *Chairman,*
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Business Administration.

CHAPTER I

The Support of Education—Major Problems¹

PAUL R. MORT AND FRANCIS G. CORNELL

ANY CONSIDERATION OF THE PROBLEM of taxation for school support during the period covered by this review must give recognition to the trends and tendencies which have been emerging. Literature of the past three years carries us back into periods covered by former cycles of the *Review of Educational Research*, where issues then prevailing take on, in retrospect, an entirely different significance. For this reason the present review will not be strictly limited to the years 1935 to 1937.

It is widely recognized that since the advent of the depression—a period covering some eight years—the problems of school finance and public finance have become more pressing and more complex. A marked increase in the volume of literature attests a greater interest in these vital problems. For the most part, however, the numerous publications in this field cannot be classed under the category of research. Many treatises and reports have been produced for purposes of public relations; that is, they have been prepared so as to popularize theory and technics, or to apply them to new situations.

Education and Public Finance

The tremendous changes which the depression has evoked make it necessary for students of educational finance to see their problems as part of the broader area of public finance in general. An increase in the amount of literature in the broader field has been evidenced by the publication of revisions and new general treatises of vast scope. To the earlier American volumes of significance, especially to current problems of taxation, such as those by Lutz (51) and Jensen (42), have been added, since 1930, the volumes by Shultz (88), King (46), Buehler (12), and Lutz (52); and an entirely new work by Jensen (41). Some indication of the increase in attention given to the problem of taxation is suggested in the 1936 revision of *Public Finance* by Lutz (52), in which factual and statistical materials covering the whole field have been brought down to date. In this work, Part III on "Taxation" is expanded by approximately 100 pages. New chapters appear on "Tax Systems and Tax Administration" and "The Effects of Taxation."

While the sources noted above are restricted to American public finance, the student interested in problems from the international point of view will find a thorough treatment in the 1936 revision of *Science of Public Finance* by Shirras (87), a two-volume work of over 1,000 pages. Another

¹ Bibliography for this chapter begins on page 190.

important source for the internationally-minded, by Bastable (6), has not been revised since 1903.

Centrifugal and Centripetal Tendencies in Conflict

The central theme of the tax problem with reference to both education and other functions of government is today one of *central-local* relationships. In this country, with its many thousands of local units, our forty-eight states, and the federal government, the problem of providing adequate revenues from public taxation to satisfy budgetary needs of all individual units in the system as a whole stands as the focus of most of our recent research.

The fact that revenues have become more available to state and federal governments is well known. The movement in taxation has been in the direction of centralization. Since governmental services in general, and education in particular, have not followed this centralizing trend so rapidly, there has resulted an unbalance of revenues and budgetary needs in subordinate governmental units. This fact has been an important basis for recent analyses of the problem of federal aid to education, a summary of which has been prepared by the National Education Association (66). The possibility of federal grants effecting significant adjustments in the tax structure has been considered in the federal support study directed by Mort (63) and in studies of the Advisory Committee on Education (83).

Tax Revenues and Fiscal Adjustment

It is virtually impossible to consider the problem of taxation aside from a consideration of the nature of the administrative characteristics of all services to be supported, and hence, the funding of these services. The problem of central-local administrative relationship involves essentially the proper allocation of administrative responsibility to obtain the best operation of the service; the proper allocation of responsibility for obtaining the funds to support these services; and the proper coordination of administrative jurisdiction with financial support. Newcomer (77) and Heer (33) have written analyses of federal-state-local tax coordination which are far too important to school finance to be overlooked.

Legislative and administrative devices enabling subordinate governmental units to derive adequate revenues for services allocated to them, or central governmental agencies to make proper use of revenues in excess of their governmental cost needs, have been termed "fiscal adjustment." As far as the educational program is concerned, state aid is the remedy most commonly studied; it is also used for other services, such as highways and social welfare. The study by Hinckley (36) represents the first comprehensive analysis of state grants-in-aid in the United States. He related aid for highways, education, health, and welfare, to diverse problems of taxation, local government areas and organization, state supervision of local government, the allocation of functions, and the general reorganization of local government. The fact that the funding of education has

served as a channel for the distribution of the potential excess revenues of central governments, both state and federal, has received much attention of investigators in school finance in the past ten or fifteen years. It has been an important factor in selecting plans both for state and federal aid to education (63).

There are, however, other fiscal adjustment devices, notably, separation of sources of revenue, local sharing of centrally-collected taxes, and reallocation of services (104). Newcomer (76) recently reported methods of fiscal adjustment in England and Germany. A comparison was made of the development of central finance in Germany, which has pursued the policy of sharing fixed percents of centrally-administered taxes, with that of England, which has shared central funds by grants-in-aid according to various measures. Among others, Studenski (92, 93) has observed that the tendency for newer types of tax resources to be of a statewide or nationwide character is common to all industrial nations. As a matter of fact, the United States has made far less use of its national tax-raising resources than other countries.

Taxation and Local Control

As more and more taxes are levied by central governments, the problem immediately arises as to whether the central governments shall assume control over the services supported by these new revenues. This has been one of the most important problems growing out of our attempts in this country to adjust taxation to problems of educational support. It has not been viewed from any single point of view by authorities in the field of public finance or even among authorities in school finance. The practice of states as indicated by the administrative and legislative changes since 1930 does not reveal a constant policy one way or the other, although, in matters of control of local expenditure, innumerable laws have been passed during the present decade.

Those treating the problem from the angle of governmental finance are somewhat inclined to propose rigid central control over expenditures supported out of central funds. Hinckley's study (36) built the thesis that state aid as a means of equalizing burden and as a means of *raising standards of service* in certain functions of statewide concern should not become a prop for supporting weak and inefficient local governments. Carr (13), in studying state-local relationships in Oklahoma, proposed a single state department of local finance to replace numerous different agencies for the supervision of fiscal programs of local authorities. In his study of the state of Tennessee, Snively (91) championed state control over local finance.

Some students, however, have seen implications for state control over local authorities other than mere efficiency of local administration or limitation of spending. In surveying local government in Minnesota, Anderson (5) opposed measures which would reduce local expenditure by the elimination of local services. Davisson (23) indicated that constitutional and legislative control of local units directed toward property tax relief in

California had not actually attained that end. A Massachusetts study by Van de Woestyne (110) supported the conclusion that although some state control is essential, vigorous, intelligent, and unremitting activity on the part of local officials and taxpayers themselves is tremendously important.

A new and forceful argument for the fiscal independence of public education—local, state, and national—has been prepared by the Educational Policies Commission (72). Whether or not separatism of educational finance is to continue as a principle of governmental organization must be weighed along with other matters examined by students of local government in general.

Basic studies made in the field of federal aid to schools by Mort and others (63) have sought "federal support without control." This stand was taken by most groups advocating federal aid measures (66). The following citation from Lutz (52) would appear to be a sound approach to the federal problem:

Despite the lack of experimental data, it is possible that the country may be persuaded, or forced, to consider a reallocation of internal functional responsibilities. If so, it must be accomplished largely a priori. So far as a problem of such great difficulty can be solved in this way, the effort should be made to establish the new distribution of powers according to the probable relative administrative efficiency of each branch of government. This is the fundamental issue, which must not be obscured by any illusions carried over from the era of "easy money," or any preconceptions based on the collapse of state initiative under the impact of federal financial aid. The central question must be, What things can the federal government do, for the common good, better than the states can do them?

Studies outlined by Mort and Cornell (62) are being undertaken to interpret the issue of control in terms of long-term effects on educational programs.

Trends in Legislation and Yield

Trends noted in the previous cycle of the *Review of Educational Research* on taxation have continued. The depression has forced states to increase their share of supporting education and other services. The ten state taxes in 1937 ranking highest, for the country as a whole, in yield were, in order: gasoline, sales, income, motor vehicle, property, alcoholic beverages, inheritance, special taxes on insurance companies, special taxes on utilities, and license taxes (96, 104). New revenues have been increasingly of the non-property type.

Estimates by the Twentieth Century Fund (104) indicated that between 1933 and 1936 state-collected taxes were shared with local governments in increasing amounts. Taxes shared, in order of amounts for the states as a whole, were motor fuel, sales, motor vehicle, corporation, income, and liquor. State grants-in-aid have increased steadily, and by far the largest element of increase has been in education grants.

Summaries of tax systems are to be found in the volume by the Tax Research Foundation (100), the sixth revision of which, with supplements,

has been increased in scope. A seventh edition of this valuable source is due at the time of this writing. The yields of various taxes for 1937 by state and local governments have been compiled experimentally by the Tax Policy League (99). The most recent official report of state tax collections in the United States appeared in 1936 (109). The National Industrial Conference Board reports on *Cost of Government in the United States* (73, 74) gave useful estimates. Special features of the Board's most recent report (74) included developments in federal finances; comparisons of tax and debt burdens in this country and in England, France, and Germany; and tax burdens on various types of business enterprises in the United States.

With tax legislation changing so rapidly in the years since the depression, the need for current summaries has been great. In the general field, summaries of this nature have been prepared by Manning (54, 55, 56) and the Tax Policy League (98). New school finance laws were summarized by Chambers (14), Keesecker (43), and the National Education Association (68, 70, 71). An indispensable service has been rendered by the National Education Association in its undertaking of cumulative summaries of school finance systems (69). Taxation for public education in the courts has been annually reviewed by Yakel (114). Trends in taxation for schools have been indicated by Bolmeier (10), Keesecker (44), and the National Education Association (67).

Studies of Taxpaying Capacity

In its simplest terms the gross fiscal capacity of a governmental unit is represented by available revenues both from internal taxation and from other units, such as state or federal grants to local districts. Net capacity for the support of schools only may be obtained by charging against the tax and other revenue-raising capacities of the unit, debt charges, and the current costs of other governmental services. The net tax-raising capacity of units for the support of schools therefore involves three elements: (a) economic resources and tax ability, (b) costs of government other than education, and (c) debt service charges.

Measures of Taxpaying Ability

The study on federal aid directed by Mort (63) contained an estimate by Newcomer of potential yields of six taxes; an index of ten measures of wealth, income, and business activity, unweighted; and ability measures weighted by regression methods to approximate tax yields. The last was developed solely for use in possible federal aid legislation. Chism's study (15) presented an index of states based on potential yields of a model tax plan. Chism compared states with respect to relative ability per unit of educational need. Norton and Norton (78) summarized the above studies and presented indexes of the relative ability of states covering the years 1930 to 1934 based on the Newcomer index of ten measures of

wealth. A study by Ashby (65) used data by Chism to compare states on ability, effort, and adequacy in state support of schools. These researches have all been directed toward the problem of federal funding discussed in another chapter of this volume.

New sources bearing upon the taxpaying ability of state and federal governments have been prepared by Loeb (50), the National Industrial Conference Board (57, 58, 90), the Brookings Institution (64), and the United States government (107, 108). A study by Cornell (19) of counties in New York proposed indexes of local ability based upon economic statistics. His proposals were directed towards stabilizing state school equalization programs by use of an index of property taxpaying ability to be used in lieu of assessed valuations. This approach may be of value in the future where state supervision of property assessment cannot be obtained. The need for a plan such as this has recently been evidenced by the change in North Carolina, made partly in the belief that a small-fund equalization would not operate because of inaccuracies in the determination of local ability. Competitive under-assessment brought county after county under the equalization feature of the Colorado plan to the point where pro rata apportionment was necessary and the entire abandonment of supplementary grants allotted on a census basis (69). Similar difficulties in equalization have appeared in the state of West Virginia (69).

Tax Reduction and School Support

The most marked change in the distribution of taxation among governmental divisions has been in the tremendous increase of tax revenues provided by the federal government. This has been accompanied by an increase in costs to the federal government, mostly for other items than education. The pressure of increased governmental cost and reduced revenue for education have been noted by investigators showing the need for increase in support of schools (66, 67). The question of whether the economic effects of education are such as to justify a far greater share of our national income and the question of whether or not the wants and the political organization of American people should be revamped to permit additional expenditures involve considerations far beyond the scope of this review. Yet there can be no doubt that to a great extent education has suffered. Public education costs declined at a much greater rate than others. Since 1933, however, through state and local taxes, there has been a resumption of support for public education (66, 67).

Education has been placed at a disadvantage not only because a property tax reduction has put a strangle-hold on the basic sources of school revenue, but in many cases in the distribution of centrally-collected funds, adequate provision has not been made for a sound educational finance program. In some states funds are apportioned on a basis of no measure of educational need whatsoever, although they are commonly classified as school aid funds. Some of these funds are, in effect, centrally-collected, locally-shared funds, even though earmarked for schools, taking the form

of state reimbursements to local units for taxes not left to local jurisdiction. For example, an intangible tax in Indiana has been distributed in part on the basis of assessed valuation for school purposes. An appropriation in Maryland has been distributed on a population basis to reduce county tax levies. Minnesota has reimbursed local units for loss of tax collections on railroad property by distributing funds for schools on a valuation basis. New Mexico prorated an emergency school fund on the basis of shortages of school budgets over a twenty-mill constitutional tax limit and distributed part of the proceeds of a motor vehicle tax to counties for schools on the basis of car registrations. A large part of a census grant in South Dakota has applied directly to the reduction of amounts levied on property by the local districts.

Taxation and Debt

Efforts to provide federal legislation for the support of schools are and probably will continue to be in competition with activities of the federal government engaged upon since the depression on a deficit financing basis. A Twentieth Century Fund report (105) concluded that (a) resources of the country are undoubtedly great enough to support present debts; (b) the large increase or present size of our public debt need not be regarded as cause for apprehension; but (c) continuance of deficit financing, although necessary in the depths of depression, would be both dangerous and unnecessary if carried into recovery; (d) government budgets must be balanced by paying off debts contracted during the depression with surpluses available during prosperity; and (e) an inflationary boom which may be the culmination of the recent recovery is becoming widely recognized.

The increase of indebtedness for all units of government was rapid prior to the depression (73, 74). Municipal and school authorities by that time were faced with shrinkage of revenues and heavy debt load which in many cases forced reduction of current expense budgets. The practice of governments incurring excessive debt during periods of prosperity and paying them off in times of depression is unreasonable on any grounds. Many jurisdictions have been burning their financial candles at both ends by constantly spending more money and increasing public debt on the one hand and generously bestowing exemptions to the taxpayer on the other. The seriousness of the local debt problem, as far as school support is concerned, is apparent when one realizes that from 70 to 90 percent of local debt is supported out of taxes on property. State and federal debts rest on a broader tax base.

The most significant contribution during the period was the study of municipal bonds by Hillhouse (34). Little had been known prior to 1930 about defaults in bond payments. According to Hillhouse, there was much overemphasis on the seriousness of debt difficulties from 1930 to 1936; debt troubles are common to county, city, school, and every other type of district; and default has hit all types of bonds. It is significant that municipal debt has continued to grow throughout the depression. Some of the

circumstances, according to Hillhouse, which had combined to maintain the increase of municipal debt have been low interest rates, which have encouraged borrowing; the issuance of bonds for relief financing; the alternative to default of refunding as a further means of temporary tax reduction; the postponement of capital improvements during the depression; and the federal stimulation of municipal debt incurrence. Municipal defaults are most common in major depression years, although Hillhouse believes that adequate solutions are not to be found in emergency legislation. Remedial measures taken by states include increase in state aid, funding and refunding legislation, state receivership laws, and state administration. In some states defaulting and debt-ridden local units have been left to their own salvation. A new type of adjustment has been the federal Municipal Debt Adjustment Act, by which the federal government assisted in eliminating municipal defaults.

Hillhouse proposed more effective debt limits and the solution of the problem of overlapping territorial units. He recommended, outside of metropolitan areas, the extension of central supervision. By way of forecast, he anticipated that in the future there would be an expansion of municipal services; that the policy of refunding indebtedness over a long period of time to "level out" debt service load presages heavier debt burden; overlapping units, with bonding and borrowing authority, will continue to encourage further borrowing.

Keyworth (45) and Owen (80) have reviewed court cases on the indebtedness of school districts covering such matters as debt limitation, the validity of indebtedness, legal and equitable remedies against districts in cases of default, school districts as affected by bank failures, and legal procedural requirements.

The Property Tax

The weakness of the property tax as a revenue producer has continued to receive the attention of investigators. The limits of property taxation have probably been reached in this country. It has been observed that the rates of property taxation are already so high that, politically speaking, an important increase is hardly to be expected (104). The spread of tax-reducing measures in the states, as noted below, is good evidence that at least the political limits of this tax have been reached. Some states, such as California, Delaware, New York, Ohio, Oklahoma, and Vermont, have reduced the property tax load by levying no state tax on property (99, 109).

Jensen (40), in writing of the advantages and disadvantages of property taxation in the United States, gave the following reasons why this tax will continue: (a) Property in the mass indicates ability to pay taxes in spite of criticisms of it—that it is a bad measure of individual ability. (b) The property tax is the only tax capable of moderately successful local administration and it meets local fiscal needs better than any other

tax. (c) This form of tax conforms better to the fiscal requirements of local taxing units as they are set up, which is an important item. "One of the desirable characteristics of American local government is its local autonomy. . . . This American institution of local government ought not to be impaired without compelling reasons." Furthermore, Jensen warned us of misjudging the property tax during depression troubles. The blame for the reduction in property tax yield he would place elsewhere.

Property Tax Administration

The need for equitable assessment of property continues. The failure of prevailing practices has been summarized for the country as a whole by Silverherz (89) in a special report of the New York State Tax Commission. He summarized reforms proposed to remedy inequalities in assessment, including equalization and devices for forcing full value assessment, such as separation of sources, tax-rate limitation laws, and conditioning state aid upon full value assessments; and, upon the basis of the Wisconsin program, he advocated a plan of state supervision over local assessment.

From the legal point of view, property valuation is involved in cases of legal indemnity—cases of damages in torts, contract actions involving property, eminent domain, and fire insurance awards—as well as in matters of taxation. An extensive study of valuation of property based upon legal sources and involving decisions of the court regarding property appraisal has been made by Bonbright (11). In his study, eighty-nine varieties of value were identified, such as actual, assessed, book, real, rental, true, and cash.

In a study of public school tax management in Texas, Wilkins (113) weighed the advantages and disadvantages of having school taxes collected by the municipal tax department against those of having school taxes collected by a separate school tax department. His criteria were tax delinquency, adjustment of the tax income period, costs of administration, control over taxation, controlling and safeguarding tax money, and the financial support of schools. His recommendations were in favor of employing the municipal tax department rather than a special school tax department.

Reducing the Tax Base—Exemptions and Delinquency

By 1937 there were twelve states which had some type of homestead exemption, and enabling acts in Utah, Georgia, and North Carolina (61). Most states carrying this provision are in the South. The practice involves exemptions of small parcels of real estate used for residential purposes from the state tax. Only the state of Florida has exempted homesteads from most of the local taxes also. In some instances it has been promoted ostensibly for the purpose of encouraging homeownership. The trend toward homestead exemptions, along with similar efforts to reduce taxation on property, seems to be ill-advised (32). The practice has been questioned by reports of the Twentieth Century Fund (104, 106). Among the disadvantages

of exemptions of this nature are to be mentioned that taxes to replace them may weigh as heavily on small homeowners as did the property tax. Moreover, it does not accommodate personal differences since it discriminates against the tenant who might be in just as great need for relief from tax burden.

Among studies of the homestead exemption applying particularly to individual states are those made in Alabama (1), Oklahoma (79), and Michigan (49). The Michigan study was prepared by Leonard and Mohaupt for the Detroit Bureau of Governmental Research. Drawing on such factual matters as could be presented on the results of homestead exemption laws in the various states, the authors concluded that such laws are not based on sound social philosophy and that they are mere expedients which seek to give preferential treatment to one particular group at the expense of other groups.

Several studies on tax delinquency have appeared during the period (7, 9, 38, 106, 112) showing trends and the extent of delinquency in various localities. Tax legislation relating to tax delinquency was passed by a majority of the states in 1937 alone (56). Nineteen states made provisions for waiving or reducing delinquent tax payments. Eight states authorized installment payments of delinquent taxes. California has had a moratorium on tax sales. Other states encourage payment of delinquent taxes by deferring the time of payment, extending redemption rights, or postponing foreclosures.

Reducing the Levy—Tax Limitations

Students of governmental finance and educational finance who have given serious thought to the entire problem of fiscal economy have built up a very strong case against tax limitations. There is a great variation in the types of tax limitations placed on local governments (100). Some states have separate debt and current expense limits, others have over-all limits. So far as the borrowings of state governments or local districts are to be retired out of tax revenues in the future, the tax limit and the debt limit involve the same problem.

It has been rather convincingly demonstrated that tax limits have not limited property taxes; that they have not accomplished reform in state-local systems; that they have not produced economy in government; and that they have not contributed to the improvement of services. It is the view of some that certainly such measures will not contribute to adaptability in public education systems. The property tax limit has placed mechanical control upon governmental services; it involves an attack upon the problem which disregards more fundamental issues; and it has produced fiscal chaos.

The evidence for and against property tax limitation laws as viewed by authorities was summarized by Leet and Paige (47). Hillhouse and Welch (35) undertook an appraisal of these arguments.

Serious students of the problem would approach such relief as is needed on property by means of more thoroughgoing reform in state-local systems attacked from the other end (104). It would appear, above all, that nothing is to be gained in the reduction of local revenue-raising by eliminating or hamstringing local governmental services. This seems to be true regardless of whether the axe happens to fall upon education or some other governmental service.

Certainly we hope that in the future a look back at the recent period of rapid increase in property tax-reducing legislation will reveal that these measures were mere exigencies, brought on by the depression, of an unbalancing of our federal-state-local financial system. In many cases it is apparent that all considerations regarding the need for flexibility in local tax freedom have not been considered.

Non-Property Tax Revenue

The Sales Tax

With the exception of the gasoline tax, little of which supports education directly, the sales tax is the most productive non-property tax now used by states. The number of states using this tax increased rapidly during the depression (66). This tax and the liquor tax were the two which especially made possible the expansion of the tax revenue collections of state governments during the depression (104). It has been observed that states adopt it because it produces large amounts of revenue on short notice; it is fairly stable, being neither excessively sensitive or unsensitive to changes in business conditions; and it produces tax consciousness. From the standpoint of the tax system as a whole, however, it is recommended only in cases of extreme emergency (75). Too often it is used where more equitable alternative sources have not nearly been exhausted (75). It bears more heavily on the low income groups; that is to say, it is regressive. It has no overwhelming advantage in ease of administration and its burden is often borne by merchants who cannot shift it to the consumers. At the present time, for the country as a whole, states are relying more upon this source of revenue in terms of amount yielded than upon income taxes which some recommend to replace it (104).

Administrative problems of collecting the sales tax have been studied by Walker and Weitzell (111). Chism (16) studied the effects of the sales tax on the relative taxpaying ability of states as measured by the potential tax yields of various taxes. Nelson and others (75) prepared the best brief treatment of the sales tax yet written.

The Income Tax

There is a growing conviction among students of public finance and students of school finance that greater use should be made of the income tax, even though there has already been an increase in the number of income

tax laws in states and in the use of this tax by the federal government (63, 67, 92, 96). A study by Magill (53) traced the development of legislative and judicial ideas regarding different types of taxable income. He gave the reasonings by courts for determining what is and what is not taxable income. His study contained British and German decisions on the income tax question. It is less relevant to problems of school finance than the matter of tax legislation and administration. An interesting treatise by Tuller (103) revealed the nature of the argument of those opposing the taxation of incomes for the support of governmental services. This type of tax is held by Tuller to be a tax on property, hence unconstitutional, since the Fourteenth Amendment forbids the states to levy graduated taxes on property. The author is a resident of California, which recently adopted a graduated personal income tax. General sources relating to income tax legislation and income tax yields are listed in the bibliography to this chapter.

Other Taxes

No attempt has been made in this review to follow through research produced on each of the various types of taxes not specially concerned with school support. Nevertheless, a few studies should be mentioned. The chain store tax is of current importance in the development of our state tax systems. With reference to it there have been two summaries by the Tax Policy League (94) and the American Retail Federation (3). An important compendium on taxation of business is a collection of papers by the Tax Policy League (95). Treanor and Blakey (101) summarized the principal features of death tax laws in the forty-eight states, with a view to increasing the same in Minnesota. The most significant information on the gasoline tax in the United States is to be found in the reports by Crawford (20, 21).

School Support and Tax Reform

Studies in school finance during the past few years have been laid down upon rapidly broadening foundations. Inevitably as students of school finance attempted to see the total problem and the relation of local, state, and federal authorities to the most complete solution of supporting schools, they have entered the field of federal aid. In the taxation field there has likewise been concern over nationwide reform. A report of the Interstate Commerce Commission (39) condemned the chaotic individualism of American governments in their conflicting tax programs. This report treated various problems of fiscal adjustment, and proposed such remedies to conflicting taxation as (a) abandonment of gasoline taxation by the federal government, (b) relatively more reliance upon income taxation, and (c) federal and state cooperation on death taxes. Girard (30) studied the possibility of state uniformity in taxation. He concluded that, although complete uniformity in state tax policy is neither possible nor desirable, there is proper scope for extension of interstate planning and for uniform legis-

lation. A study by Powell (82) attacked certain aspects of federal-state relationships.

Studies by the Twentieth Century Fund (104, 106) examined the American tax problem as a whole, federal, state, and local, although in legal or actual fact there is no American system. The writers of these reports used the two primary objectives of adequacy in producing revenue, and social control. With emphasis on these two points there is considerable clarification in the understanding of the theoretical goodness of a tax system. Such matters as tax justice, adaptability, flexibility, and equity are all treated as secondary criteria contributing to the other two. If at least the first consideration, adequacy of revenue, were applied to reforming our state and national tax structures, benefits to education would obviously be advanced.

Immediately when the social control or taxation for social reconstruction point of view is taken, such as that held by Studenski and others (92, 93), one need go but a step further and he has ample support for the argument of better financing of education. In practice, however, it has long been recognized that any wholesale redirecting of income of American taxpayers into other channels is a complex process. Countries have not changed rapidly in their tax programs unless this has been preceded by radical changes in governmental organization (92). We will undoubtedly continue to forsake theoretical economic limits of taxation for political limits inherent in American democratic tradition. Much is yet to be known of fallacies and stereotypes in thinking along this problem. In spite of the fact that there has been groping in the dark, it would appear that states have been moving in the right direction.

Too little is known about elements in American culture and the legislative structure and administrative organization of our state educational systems to understand fully why wide gaps exist between practice and theory in school support (62). Educational statesmen of future periods of state reform in school taxation will undoubtedly need to be students of practical politics. Interesting new sources by Zeller (117), Graves (31), the Tax Policy League (97), and Almack (2) suggested what has recently appeared along this line.

The future place of the federal government in school finance is not to be predicted. New researches of the Advisory Committee on Education we hope will be helpful in directing federal participation into proper channels. Some of the practical problems of maintaining efficient educational programs (this term taken in its broadest sense) must receive the continued attention of educationists who are to face inevitable problems of financial readjustment in the future.

CHAPTER II

Financial Planning¹

W. W. THEISEN

Objectives and Needs

FINANCIAL PLANNING for public education embraces the fiscal phases of large-scale adaptations to social needs and conditions. It has for its primary objectives educational betterment, economy in expenditure, the assurance of adequate financial support under varying economic conditions, and the guaranteeing of a basic education to all children irrespective of the accident of their social inheritance, their place of residence, or the prosperity of the times (141). Fundamentally, it seeks to ascertain as accurately as possible the present and future educational needs of society, the consequent needs of the schools, and a plan for financing those needs as they occur. It includes not only long-time budget estimates, but also a study of the factors which affect revenues and costs.

Among the purposes of a long-term plan are: "(1) to link the annual budgets together into an integrated school program, (2) to prevent the initiation of school projects which would almost certainly have to be abandoned later because of inability of the district to finance them, and (3) to insure that each school year shall bear its own financial burdens as well as be free from the burdens rightfully chargeable to other years" (145).

Need for financial planning arises out of a variety of causes which have been pointed out, or are strongly implied, in the writings of students of educational finance. Among them are: (a) social changes affecting the need for education in a given community or section—including shifting of population from one section of the country to another, from farm to city and from city to suburb—and diminishing birth-rates; (b) changing demands for young workers in industry, resulting in a lengthening of the period of schooling, and the demand for the reeducation of adults; (c) wasteful administrative practices, including such matters as excessive costs, the operation of small and expensive school units, duplication of educational effort, losses suffered through improper safeguarding of funds, unnecessary interest payments; inefficiency in the planning and location of school buildings; (d) the need for stabilizing income and reducing the shock of depression years, unusual demands for funds when buildings are constructed or bond and interest payments must be met; (e) inequalities in educational need and opportunity, differences in effort and willingness to support schools, inequalities in educational burden and ability to support schools, inequalities in assessment and tax collection; (f) need for

¹ Bibliography for this chapter begins on page 194.

control over funds; and (g) dependence of school districts on outside bodies for sanctioning of school budget requests (see bibliography for references which apply). The problems which should be considered in financing a long-term program of education were treated by Van Kleeck (154).

Financial planning is not limited to any single aspect of the school program. Flocken (127) pointed out that long-term planning is involved in certain budget items such as those representing major changes in educational policy, possible future building repairs and new construction, debt amortization, and plans for employee retirement. Matters included in long-term budgets in Oklahoma were: "(1) the school's three-year program of studies; (2) the building program of the district for at least five years ahead and how it is to be financed; (3) the schedule of payments of insurance for at least three years ahead; (4) provisions for the replacement of school buses; (5) the schedule of projects for the redecoration and repair of school buildings, equipment, and apparatus; and (6) other similar items" (145).

As is to be expected, certain aspects of the complete program lend themselves more readily than others to precision in predicting needs. If, for example, the remaining half of a twenty-year serial bond is to be retired in the next ten years, and no new issues are contemplated, the amount which will be required for bond and interest payments in each of the next ten years can be accurately determined. So far as pupil population and building costs can be foretold with accuracy, capital outlay needs can also be determined with reasonable accuracy. Similarly, so far as trends in property values remain constant and current tax laws remain in effect, the amount of revenue which may be raised over a period of years can be determined with a fair degree of accuracy. As improvements in prediction technics are developed, accuracy in predicting tax yields may be expected to increase. Fixed policies of the local school district with reference to such matters as pupil-teacher ratios, salary schedules, retirement, types of education provided, per-pupil quotas for textbooks and supplies, equipment standards, and maintenance schedules, will also contribute toward the exactness with which the fiscal needs of the schools can be foretold. Noteworthy advances in recent years in the development of valid and reliable measures for determining such matters as the relative need, effort, and ability to support schools, as applied to different districts, areas, or states, have contributed greatly to the possibilities for improved financial planning.

Advantages and Limitations

Among the advantages claimed for long-term planning are: that it stimulates planning for social and economic security on a local, state, and national basis; that it tends to improve the financial position and practices of the district; that it makes for more effective educational results;

that it helps to estimate "terminal costs"; and that it tends toward security and stability of revenues and economy in expenditures (122, 123, 131, 133). Among the difficulties and limitations listed by De Young (122) were: inaccuracies resulting from such variables as population growth, fluctuations in business prosperity and in the ability of the forecaster; incompleteness of detailed basic data; short-term appointments; and rapid turnover among school executives and board members.

Limitations on financial planning under the federal government's effort to aid education through the Public Works Administration were pointed out by Falk (124). Among them he cited: (a) restrictions and regulations which prevent the application of the principles of financial planning; (b) lack of understanding as to what constitutes intelligent school plant planning; (c) curtailment of financial benefits by unreasonable restrictions and regulations and improper supervision; and (d) disregard for equalization of educational opportunity.

De Young (122), in a recheck of 317 schools out of a group of 816 which three years earlier had prepared a budget for a period longer than a year in advance, found that 15 percent prepared a long-term budget. He described the long-term budget plan developed by Studebaker at Des Moines whereby, for a period of the past ten years, efforts have been made to determine budget needs five years in advance of actual spending.

Local Planning

Among the problems of local planning is the consideration of the proper unit of school support and administration. For example, Overn (146) reported a study of education in Sargent County, North Dakota, which sought to determine inequalities in ability to support education, and to improve the schools without raising taxes. Recommendations called for: (a) uniting districts into a single unit for the county; (b) employing the wealth of the county to support the entire educational program; (c) using utility taxpaying power for the benefit of all districts; (d) reduction in number of schoolboard members to a minimum; and (e) dividing the county into districts to create schools of at least 500 pupils.

A significant number of studies of this kind have been made, dealing with reorganization of schools units and the effect on school income and expenditures. These studies are reviewed in another chapter in this issue. The relation of educational finance to municipal finance is another problem of local long-time planning. It is treated elsewhere in this issue.

The planning of capital outlay has been practiced more or less for some time, but new phases have developed since the onset of the depression. For example, as a means of meeting the problem of fluctuating incomes, Hamon (129) proposed that a pay-as-you-go policy in schoolhouse construction be employed in periods of rising prosperity, or on the up curve of the business cycle, and that 10-year bonds be issued during depression periods, or on the down curve of the business cycle. He urged that callable

provisions be inserted in bonds so that they may be retired or refinanced at lower rates of interest in prosperous times. Staley (151) reported the results of a 20-year building program at Hastings, Nebraska, set up in 1925. The plan thus far has resulted in plant enlargement and modernization which has in turn permitted the offering of a much enriched curriculum. Further discussions of this subject will follow in subsequent chapters.

The importance of taking the community into the planning process is emphasized by Moehlman (135). He called attention to the inadequacy and shortsightedness of the former public school attempts simply to "sell" the public on something, and urged that educators bring groups of community members into conference before plans and policies are all decided. Planning of educational programs should be a democratic endeavor.

Statewide Planning

It is commonly recognized by students of finance that if long-time planning is to become effective over wider areas, statewide measures for improving methods of financing schools will need to be placed in operation in many states (120, 121, 132, 134, 147, 152, 157). Among needed changes in methods of financing an educational program listed by Viles (155) were: (a) a long-time planning program; (b) stabilization of income through new methods of taxation; (c) improved equalization, or a state system of financing; (d) state assistance in standardizing supplies; and (e) supervision of school funds in local districts. It is interesting to note that one writer attributed the fact that the depression had not hurt the Massachusetts schools to three factors: (a) a pay-as-you-go policy; (b) school financing as an integral part of the city and town budgets; and (c) aiding poorer districts by a general fund taken from income tax receipts (126).

The many studies of the ability of the individual states to support education, of the effort that states are now making to finance education, and of the educational need in the different states, all point to the need for planning educational support on a larger scale. These studies will not be reviewed here as they are presented elsewhere in this volume.

The need for calm deliberation and planning, even in apparent emergencies, is shown in the operation of the Field Act in California, the effects of which were reviewed in a report of the superintendent of schools in San Francisco (150) and by Mullany (137). The act resulted, in San Francisco, in condemnation of eighteen steel-framed buildings which had been constructed in accordance with prevailing laws and approved by competent engineers upon many occasions. The act imposed hardships on local communities, limited school efficiency, and placed a huge burden on the taxpayers with returns of questionable worth. Despite the fact that experience had shown that buildings located on hills or rocky ground are seldom damaged, the law, enacted under pressure of special interest groups,

failed to take into account the character of the ground on which the school rests.

Planning on a National Scale

The need for planning on a national scale has been pointed out repeatedly by students of educational finance (119, 128, 136, 139, 140, 141, 144, 149, 152). The need for federal participation in the support of education is expressed in the following statement:

Without it there is not the remotest possibility of providing an equitable minimum standard of educational opportunity throughout the nation. This conclusion is based upon the following indisputable facts: (a) there are the most appalling differences in educational opportunity, both among the states and within the states; (b) these differences in educational opportunity are the result of economic conditions largely beyond the control of the states; (c) regardless of the effort made, many states will never be able to provide, from their own resources, a minimum acceptable program of educational opportunity; and (d) the recent development of corporations and holding companies, and changes in the forms of wealth, have made it impossible for the states to tax the greatest potential sources of revenue (139:156).

The Advisory Committee on Education (118) concluded: "Long-range planning for education, as distinguished from the research on which it should be based, should be regarded as an appropriate and a major responsibility of all general planning agencies, although agencies concerned primarily with education should also give greatly increased attention to long-range planning. Social and economic planning for education should be emphasized in the work of all national, state, regional, and local planning boards."

Reeves (149) pointed out that local responsibility for the costs of education cannot provide the equality of opportunity which is also an essential prerequisite for democratic freedom. The most serious difficulty is found in the less prosperous rural sections of the country, where local tax resources are wholly inadequate to support a proper system of schools. Throughout the nation, in one-teacher schools, nearly one-fourth of the teachers themselves have never gone beyond the high school. Although 70 percent of the urban youth of high-school age were in school in 1934, only 30 percent of the rural youth of this age were enrolled. The chief problem of the federal government is the millions of young people who have had to drop out of school because they lacked the clothes, the books, or the carfare to permit them to attend. The greatest need for federal aid is primarily for the purpose of raising the level of educational opportunity where it is now most inadequate. New types of federal grants to states are recommended. They include: aid for elementary and secondary education, improved preparation of personnel, building construction, administration of state departments of education, adult education, rural library service, and research and planning. Ten principles are set up for extending federal support for education without undesirable federal control.

The Research Division of the National Education Association (139) summarized the published reports on the hearings on the Harrison-Black-Fletcher Bill. Among the findings pointed out were: wide differences in the extent and quality of the school programs offered by the various states, due in most cases to economic conditions; inequalities in the ability of states to support education as revealed by Newcomer's data (143); marked inequalities in the economic ability of the states to support education which are emphasized by differences in the size of the educational task; differences in regional rate of natural increase in population which tend to perpetuate and increase educational inequalities; movement of population from farms to non-farm and urban areas resulting in a movement of wealth in the same direction; growth in corporate ownership and control of wealth, making it increasingly difficult for states to tap their own economic resources for the support of education and other public services; that educational inequalities cannot be removed even though the states adopt modern tax systems and allot a suitable proportion of resulting revenues to the financing of education; that inequalities in educational opportunities cannot be eliminated by the improvement of state tax systems; that the nation can afford to extend federal aid to education as shown by what people pay for government and for certain commodities and services; that federal aid for education would not place an undue burden upon states where federal tax collections are already relatively large; and that the mobility of population makes the education of children in all states of national concern.

CHAPTER III

The Financial Implications of School Organization¹

J. HAROLD GOLDTHORPE

RESEARCH LITERATURE on school organization was analyzed and reported in the October 1937 issue of the *Review of Educational Research* (216); the present chapter therefore reviews only studies published since July 1937, which are primarily concerned with financial relationships. In several instances reports of materials other than objective research studies have been included because of their pertinence and value.

Attendance Units and Fiscal Factors

Holmstedt (187) investigated the criteria of efficient attendance areas in Indiana by analyzing the influence of the following factors: size of school, the pupil-teacher ratio, instructional cost per pupil, transportation limitations, population density, and the relations to other local governmental units. Based upon Indiana conditions he proposed two major standards: first, a minimum enrolment of 220 pupils for six-year elementary schools, 280 pupils for eight-year elementary schools, or 400 pupils in the last four years of high school; and second, a maximum travel distance of 15 miles on transportation routes. The maximum radius of an attendance unit would thus approximate 8 miles, and include an area of 200 to 250 square miles, which, in sections of average population density, would yield an enrolment of 1,100 elementary- and 460 high-school pupils.

Hyde (190) reported a survey concerned with the reorganization of attendance units in accordance with the recent West Virginia county unit law. He concluded that the elementary-school enrolment in one- and two-teacher schools of the state would be less than a third of the previous number, and that the state index of consolidation for elementary schools would be 74.1 under the proposed reorganization plan as contrasted with 33.8 under the former district system. For high schools, the median index of consolidation would be increased from 61.8 to 86.3. Under the proposed plan the annual net saving in current expenses would approximate two million dollars, but the cost of new housing and equipment would be twelve and a half million dollars.

Lambert (200) presented a theoretical consideration of the structural factors which influence attendance areas, and pointed out that decisions concerning attendance areas should precede the establishment of administrative unit boundaries.

Lambert and Woolf (198) studied the statutes to determine the definition of transportation need, and Morphet (202) worked out a transportation

¹ Bibliography for this chapter begins on page 196.

saturation index. Friswold (182) discussed the elements concerned with transportation costs and efficiency and demonstrated the need for more accurate accounting records. Based upon the findings of twelve representative studies, Roberts (218) analyzed five major cost factors in the operation of school transportation service.

Riddle (217) made a comparative study of the effectiveness of large and small six-year rural high schools in Alabama which indicated the superiority in educational services and financial economy of the larger units. The factor of size of unit and its influence upon the organization and services of reorganized high schools was investigated in a comprehensive manner by Seyfert (220). De Silva (176) estimated a saving of \$65,000, or about 6 percent of the current expenses, in the Inglewood, California, schools by grouping children extensively on a chronological basis and raising the average class size approximately five pupils.

School Districts and School Support

There are in the United States approximately 127,000 school districts, having a half million board members, and employing a million teachers—about two teachers per schoolboard member. There are approximately 138,000 one-teacher schools.

After a comprehensive analysis of the organization of local school units in the United States, Chamberlain and Meece (167) worked out a classification involving basic and intermediate units. Various characteristics of each scheme are summarized as follows:

System of organization	Number of states	Mean number of basic units per state	Mean area of basic unit in square miles	Mean number of teachers per unit	Mean percent of school support from state sources
District-township-county	2	9,413	6.0	4.3	17.8
District-supervisory union	1	8,536	5.5	9.2	33.5
District-county	23	3,872	22.9	4.3	20.8
Township-county	3	1,440	20.5	27.4	24.0
Township-supervisory union	6	266	38.8	33.9	20.0
Semi-county	9	160	403.9	101.5	33.5
County	3	48	547.4	252.0	36.9
Evolving state system	1	15	131.0	111.3	89.5
Mean	—	2,580	24.0	7.2	26.1

In concluding their study Chamberlain and Meece referred to the following trends: (a) the enlargement of the traditional administrative unit through consolidation; (b) the development of the superimposed high-school district; (c) interposition of an intermediate unit between the basic unit and the state; (d) increasing state support; (e) gradual state centralization of administrative and supervisory authority over local units; (f) elimination of the independent district; and (g) elimination of subdistrict trustees.

In considering major issues in the organization and administration of a state school system the Educational Policies Commission (207) suggested the following questions:

1. How well is the present school district organization meeting the social, economic, and educational needs arising from modern conditions?
2. What standards should determine the characteristics of an efficient school administrative unit?
3. How would proposed reorganizations affect expenditures for teachers' salaries, transportation, and capital outlay?
4. What is the plan of the organization of state, county, and local units, and their relationships to each other?
5. What changes are needed in the legal basis of school administration and organization?

Hansen (185) proposed a realignment of the county boundaries of Utah in order to make the units conform to natural geographical and topographical areas. He also took account of trade areas and the administrative units of twelve governmental agencies and proposed six regional divisions or "provinces" which would vary in population from approximately 30,000 to 218,000, with a range in per capita valuations from \$590 to \$1,140. He estimated that the annual saving due to a reorganization on a regional basis would approximate 25 percent of the present cost of governmental services.

Further studies of the problem of governmental units of the counties and school districts in Utah were made by the Investigating Committee of Utah Governmental Units (229). This group studied constitutional limitations on school finances, the revision of the revenue structure, the possible effects of homestead exemptions, and the effects of the present financial plans. The Committee presented possible types of reorganization: (a) a large district plan, with state equalization of support for a minimum program; (b) the state unit of support, with county or large district administrative control; (c) the state unit complete for both administration and support. The Committee considered various redistricting plans, but raised the question whether a solution to the problems of school support would be found in further consolidation of school districts, and recommended the establishment of a foundation school program supported by state revenues.

Caldwell and Burke (164) studied the problem of financial support and educational opportunity in the one-teacher school districts of New York State. They were concerned primarily with the changes in these districts brought about as a result of the depression and the state's policies of transportation and equalization. They found that the district organization prevented complete equalization of educational opportunity for rural children and requested district reorganization under state leadership with adjustments in the state's financing program to assist rural schools.

Cyr (174) wrote concerning needed research on the reorganization of school districts in rural areas, and pointed out that the reorganization

of the administrative structure must meet four basic conditions: (a) conformity to accepted educational aims; (b) efficiency and economy; (c) democratic control; and (d) provision for variation and flexibility. Grace (29) listed seven criteria for the determination of the size and extent of the local administrative unit. The election, duties, and powers of elected school officials of New York school districts have been studied by Griffey (184), and he has shown how the demand for local control and regulation of the district tax rate has "rendered the abolition of the district organization almost impossible."

Cook (171) reviewed the status and development of the consolidation movement and conditions in rural areas with special attention to the problem of transportation. Wehrwein and Baker (231, 232), in two studies of the problem of the cost of public services in the zoned areas of northern Wisconsin, indicated the high educational costs in the sparsely settled areas.

Tuition policies for non-resident high-school pupils were the subject of study by Fowlkes and Skewes (181). As a long-term policy they urged that all the territory of the state be included in districts for high-school support and that the states should revise their tuition administration practices.

Kilzer (197) studied the methods of financial support of local public junior colleges. The Investigating Committee of Utah Governmental Units (228) studied the methods of financial support of junior colleges in other states and recommended the creation of seven junior college districts and an enlarged state aid plan for current expenses and housing.

Local School Units Project of the U. S. Office of Education

The most comprehensive study of the local school unit was made through the cooperation of the federal government and ten states selected by the United States Office of Education, under a grant by the Works Progress Administration made in December 1935. The published reports of the completed studies of seven of these states—Arkansas (159), California (165), Illinois (191), Kentucky (195), North Carolina (210), Ohio (213), and Tennessee (226)—are now available (January 1938).

In each of these states the workers made exhaustive analyses of the economic, educational, social, and physical factors concerned with local school organization. The data for these studies were collected in accordance with plans formulated and suggested by the Office of Education (227). The purpose of these studies, as stated in the California report, was "to make detailed analyses of existing school district organization within the participating commonwealths; to check findings against 'acceptable' standards; and to formulate proposals for the organization of 'satisfactory' local school units." The major topics considered in the various state reports are as follows:

1. Trends in school attendance and administrative units
2. Minimum standards for schools, attendance and administrative units

3. Evaluation of the present status of schools and school districts
4. Proposed legislation relating to the organization of attendance and administrative units
5. Proposed financial program and estimated costs.

In addition to the published state reports there are being prepared county reports in mimeographed form showing the present school organization, road conditions, economic resources, population trends and composition, school enrolments, teaching personnel, plant facilities, pupil transportation and educational costs for the guidance and use of local and state authorities in planning reorganization activities.

A brief summary of comparable data from six states on three items is here indicated:

	State	Units in 1935-36	Units proposed
Number of Administrative Units	Arkansas	3,134 *	75
	California	3,062	88
	Kentucky	281	223
	North Carolina	167	..
	Ohio	1,729	900
	Tennessee	174	95
Number of One-teacher Ele- mentary Schools	Arkansas	2,749	403
	California
	Kentucky	5,367 *	1,659
	North Carolina	1,472 *	..
	Ohio	2,387	7
	Tennessee	2,798	none
Number of High-Schools	Arkansas	733	428
	California ^b	251	299
	Kentucky	848 *	328
	North Carolina	902 *	..
	Ohio	1,303 *	1,073
	Tennessee	640	..

Considerable variation is shown in the studies of different states, and genuine efforts have been made by the various staffs to deal with their own individual and peculiar problems. The Arkansas study (159) suggested alternative reorganization proposals upon the basis of the present 75 counties, or 280 administrative units based upon the senior high-school attendance units. A detailed analysis of the steps involved and estimated costs of reorganization in three typical counties were given.

The project staff revealed that three-fifths of the California elementary-school districts did not levy a local school tax but relied wholly upon their state aid (165). Utilizing the county lines for a framework, this report proposed the reduction of approximately 3,000 school districts to 88 reorganized units. The standard employed in making this recommendation

* Data for 1934-35.

^b Based on study of 15 typical counties.

was a minimum enrolment of 1,500 pupils, and 45 teaching units. In a comprehensive study of the situation in 15 typical counties, it was proposed to reduce the 984 districts to 42 administrative units, thus saving approximately 2,600 teachers and almost five million dollars in current expenses, but requiring six million dollars for new housing.

The Ohio study (213) was carried out in connection with the mandate of the 1935 Ohio School Foundation Act which required county school-boards for four successive years to submit plans for the reorganization of their attendance and administrative units. The State Department of Education must approve the maintenance of schools whose average daily attendance is below 180 pupils. In the first year under this law the number of school districts was reduced by 138; the number of one-teacher schools, by approximately 500; and the number of small high schools, by approximately 50. When reorganization has been completed under this plan, there would be 900 administrative units, 1,073 high schools, and only 7 one-teacher schools in the state.

County Units

The results of West Virginia's county unit law have been analyzed by Cavins (166) and Teal (225). By this act in 1933 the state reduced the number of administrative units from about 400 magisterial and independent districts to 55 counties. During the first year of the new law approximately one-fourth of the state's one-teacher schools were eliminated with few new buildings, and all schools had nine-month terms.

Euler (178) studied the unification of counties in Kansas and pointed out that the changes should come through the modification of community attitudes by means of an adult education program rather than through abrupt legislative action.

Kaser (194) analyzed administrative reorganization possibilities in 8 typical New Jersey counties and proposed the reduction of 222 school districts to 38 districts with an estimated saving of approximately a million and a third dollars, or \$8 per pupil enrolled. If this plan were extended to all the counties of the state with the exemption of cities over 20,000 population, there would be but 53 administrative units in lieu of the state's present 547 independent districts.

The State as a Unit

Despite the fact that Delaware and North Carolina have administered their public schools upon a state basis since 1921 and 1933, respectively, there is a dearth of research concerning their experience. Using the four criteria of equality of opportunity, equality of burden, stability of revenue, and proper local autonomy, Hudnall (189) evaluated the Delaware experience and concluded that the state had made notable progress relative to the first three criteria, but that there had been a sacrifice of local autonomy and there was "some evidence neither complete nor conclusive that this has been accompanied by a loss in local interest and initiative."

The experience of North Carolina under centralized administration, and state support of a guaranteed term of eight school months, has been summarized by Highsmith (186), Peele (215), Fowler (179), and Wager (230). Highsmith listed four important gains under the system and pointed out that the major defect of the plan was the legislature's failure to appropriate sufficient funds (186). Wager considered the centralization of school support and administration as part of the state's general program of the centralization of the public services of highway administration, administration of justice, police protection, and social welfare, and recognized that remote control weakened participation in government but cautioned that the real danger was "not loss of local initiative but rather civic indolence and apathy" (230).

The place of capital outlay and debt service in the state's minimum program for equalization and the plan employed in Alabama for this purpose have been studied by Morphet (203, 204). Weller (233) suggested a technic for federal and state participation in the equalization of building costs by means of an objective formula. Upon the basis of his studies of rural schools in New York State, Burke (162, 163) recommended that the state encourage the formation of larger administrative units. This would be accomplished most effectively by assuming the additional costs of general control, rehousing, and transportation, on an annually decreasing scale as economies are obtained by the larger units.

CHAPTER IV

Budgetary Procedure¹

W. W. THEISEN WITH THE ASSISTANCE OF RUEBEN P. HEUER

Outline of studies—Campbell (237) and Reusser (251) investigated the laws of the several states with reference to public school budgets. Peterson (249, 250) studied the status and effect of public hearings on school budgets. Both Seyfried (254) and Tolle (258) reported on budgetary procedure in New Mexico. Spinning and Akerly (257) described the budgets of Rochester. Jenkins (244) reported the steps taken in Tyler, Texas, to balance the budget. De Young (238) devised a checklist, and Engelhardt and Engelhardt (239) developed a score-card, for evaluating budgetary procedure. Weller (259) developed a set of standards for determining the soundness of school budgetary procedure. In addition to these, general articles bearing on the subject of school budgets have appeared in periodical literature. Two unpublished master's theses were written at George Peabody College for Teachers, one by Bolin (236) on procedure in Illinois, and the other by McCarthy (246) on budgeting in Virginia.

Concepts of a Budget

An examination of the literature on the subject leads to the conclusion that a school budget is in many respects an order for educational goods and services based upon the needs of the consumer and limited by the ability of the purchaser to pay for them. De Young (238) defined the ideal school budget as a complete financial forecast of both receipts and expenditures based on the educational plan. Flocken (240) regarded the budget as a financial plan for a future period showing the probable expenditures and the probable revenues. He stated that it is a "comprehensive recorded program, embracing, so far as financial activities are concerned, everything which it is proposed to do in the coming period." According to Fowlkes (242) the budget is the determining factor in the services which a school renders to a community. It is an interpretation of the school's policies and activities in fiscal terms. The function which the school is expected to render in the community is therefore the first consideration in the preparation of the budget. In such matters as salaries, standards of teacher preparation, scope of program, types of curriculums, teaching load, length of term and school days, use of equipment and supplies, and school organization, the budget is a reflection of administrative policies.

Holst (243) contended that when properly made and administered the budget provides authority, fixes responsibility, emphasizes relative values, organizes procedures, and promotes constructive administration. When

¹ Bibliography for this chapter begins on page 199.

well planned it leads to economy in effort and funds. The principles which govern budget making are identical with those which govern scientific administration. A sound budget cannot be prepared, presented, and administered except under an honest and intelligent administration; neither can an administrative organization function without an honest budget. Campbell (237) regarded the budget as a financial plan for carrying out the program of a school system. Its "function is to portray a complete picture of the financial activities of the school system, the effort that must be expended to support the proposed program, and the probable condition of the school's finances at the end of the designated period."

Evaluation of Budgets

Criteria for evaluating budgets and budgetary procedure were developed by Campbell (237) from an examination of twenty-six publications on budgets and allied subjects. From the suggested criteria found, six were selected as having validity for purposes of evaluating budgetary procedure and the conditions under which sound budgeting can proceed. The six were:

1. *Inclusiveness.* The budget presents a complete picture of the financial plan for operating the schools. . . .

2. *Balance* (articulation of ends with means). The budget considers the needs of all legitimate activities in the school system in relation to each other and to the organization as a whole; it contemplates the total expenditures for all purposes from the standpoint of the anticipated income. . . .

3. *Responsibility.* The budgetary procedure definitely places the responsibility for directing the preparation, the presentation and defense, and the execution of the budget on the executive head of the school system and the responsibility for its review and adoption on the board of education. . . .

4. *Fiscal control.* The budget serves as an instrument in controlling income and disbursements. . . .

5. *Flexibility.* In providing for financial control, the budgetary procedure recognizes the possibility of emergencies which necessitate such change from the original financial plan as is compatible with its safeguarding as a whole. . . .

6. *Publicity.* The budgetary procedure includes adequate provisions for informing the public of the proposals contained in the plan for carrying on the school operations; it offers the opportunity of criticism and suggestions to parties interested in the conduct of the schools. . . .

Three additional conditions were listed as necessary to proper budgetary procedure: (a) an adequate accounting system, (b) a definite fiscal year, and (c) independent audits regularly and frequently conducted.

A score-card for evaluating budgetary procedure was developed by Engelhardt and Engelhardt (239) as a part of a more complete score-card for evaluating the business administration of a school system. A total of 110 points was distributed to budget items as follows: form 15, preparation 30, justification 10, adoption 25, administration 30. Tolle (258) using this score-card, adjusted to a basis of 100 points, found that the total of the median scores allotted on the main items of the score-card to budgets in New Mexico was 36 points.

De Young (238) proposed checking the ratio of estimated receipts to actual receipts and the ratio of estimated expenditures to actual expenditures as a means of evaluating budgetary procedures. A percent markedly above or below 100 is regarded as representing ineffective procedures. He also devised a checklist of budget content and format, not only for use in evaluating budgets after they are completed and adopted but in diagnosis during the process of preparation.

Preparation of the Budget

Responsibility—A study of the literature on school budgeting reveals a strong unanimity of opinion, either expressed or implied, that the superintendent should have full responsibility for the preparation of the budget (235, 237, 238, 239, 242, 245, 257, 258, 259). In this connection Campbell (237) found that while some progress had been made since 1921 in placing responsibility for budget making on the superintendent, there was still "considerable room for improvement." Only four states have satisfactory provisions for placing responsibility for the preparation of local school budgets on the executive officers of the districts. In three other states such provisions apply to local units only. All other states fail to make the executive offices of the local school district directly responsible for the preparation of the budget.

Keister (245) reported that while the principle that the budget should be prepared by the superintendent and submitted to the board for approval or modification was an accepted one before the depression, it has since been abandoned in many small school systems. Due to loss of confidence in the ability of superintendents to spend wisely, boards in a few cases have taken over the entire responsibility of budget preparation and purchasing. Others have hampered administrative officers or eliminated services which are educationally important and have left unchanged items which could have been reduced without serious harm. Reusser (251) found that responsibility for the budget is placed in the board of education in thirty-six states, in the board and superintendent in five, and in the superintendent in three, while five did not specify.

Time of year for preparing budget—The time for preparing the budget, Reusser (251) found, is fixed by law in thirty-two states and is usually related to the date for the opening of the school year, the approval of the budget, or the levying of local taxes. The most frequently specified time for preparing the budget is thirty days preceding the opening of the fiscal year.

Campbell (237) pointed out that the "fiscal year in use may hinder or facilitate the functioning of the budget as an instrument of control. The problem of what constitutes the optimum fiscal year involves consideration of such factors as fiscal dependence or independence, the school year, the time of budget preparation and adoption, and the time of tax collection and assessment." Campbell also held that if the budget is to be effective

as an instrument of fiscal control it should be presented and adopted before the fiscal year begins. Only ten of the thirty-five states considered were found to satisfy this requirement. Eleven allow the presentation of the budget after the beginning of the fiscal year, while in the remaining fourteen the time of presentation is not specified or varies with the types of districts.

De Young (238) pointed out that states and cities which set the date for completion of the final budget too far in advance of the fiscal year often hamper budgeting procedures, but that those that fail to specify the date when the instrument must be completed are apt to encourage procrastination and hastily prepared budgets. Flocken (240) would make budget preparation a continuous process. Shortly after the approval of the last budget he would have budget estimates revised to show actual appropriations. These appropriations should appear in the next budget in order to make a comparison with the estimates of the coming period.

Basis of estimates—Except for tax limitations, provisions in law which furnish a basis for making estimates of expenditures, Reusser (251) found, were relatively rare. Students in the field appear to be in general agreement that budget amounts should be based upon the educational program (237, 238, 239, 240, 242, 243, 258, 259), and determined upon the basis of unit costs. Specific data which should be available for making estimates include: total and school population, probable enrolment increases, pupil-teacher ratios to be maintained, equipment and supply quotas, salary schedules, facts as to economic and social conditions and trends, the financial ability of the district, and receipts and expenditures of preceding years (239, 240, 242, 249, 250, 257, 259). The major factors which determine budget requirements are teaching and janitorial loads, salary schedules, capital outlay needs, debt service requirements, administrative and supervisory staff needs, building facilities, and equipment and supply needs (239, 240, 242, 259). Holst (243) pointed out that a true budget requires investigation of the justification of each unit of activity. Slater (256) held that a close approximation of the budget should be secured from statistical data regarding previous years with allowances for contemplated growth. Flocken (240) regarded the facts of past periods, especially the immediate past, as the most useful guide for the requirements and expectations of the immediate future period. He insisted that new services, before being placed in the budget, be carefully considered as to their first cost and as to their ultimate cost.

Form and organization—Two important recommendations commonly made as to the form and organization of the budget are: (a) that proposed expenditures be classified in accordance with the classification followed in the accounting system; and (b) that comparative data for preceding years be shown for income from various sources and expenditures for various activities, divisions, or purposes, together with unit cost figures and percent distributions for various purposes (237, 238, 239, 240, 242, 253, 256, 257, 258, 259). Campbell (237) recommended that the state

department prescribe in detail the forms to be used by local school units. A form for analyzing the tentative school budget was designed by Fowlkes (242).

Provisions for emergencies—Authorities commonly agree that provisions for meeting emergencies which may arise should be made under proper board control (237, 238, 239, 240, 243, 256). Emergency provisions were studied by Campbell (237) and by Reusser (251). Campbell's analysis of state provisions indicated that among thirty-five states which provide for local budgeting, eighteen have no specific provision for emergencies. Fourteen provide for restricted borrowing "usually within the limits of the anticipated incomes for the current year." Four have no legal provision for borrowing. The remaining seventeen states have specific provisions for meeting emergencies. Reusser found that the most frequent provisions for emergencies were: (a) an emergency fund; (b) provisions for additional taxes; and (c) borrowing. Anticipation warrants have been legalized in two-thirds of the states. Transfer of funds from one budget item to another is generally allowed at the discretion of the board, but specific restrictions are placed on transferring monies from one fund to another. While seven states prohibit the inclusion of an emergency or miscellaneous fund, the budget forms as prescribed by law or state officials in at least eleven states were found to provide for an emergency fund in the budget. In Kansas and California the emergency fund may be as much as 10 percent of the budget. On the other hand, De Young (238) urged four precautions in the use of emergency funds: "(1) The amount in the fund should be kept at a small percentage of the total budget, possibly less than two per cent (2) These funds should be specifically labelled for emergencies (3) The amount should approximate that of emergencies which have arisen over a period of years or which are very likely to occur. (4) Emergency funds should be used only by a vote of the board of education."

Approval and Adoption

Publicity—Students of budget practices strongly favor wide publicity for the proposed budget (237, 238, 239, 243, 253, 256, 257, 259). Campbell (237) held that unless publicity constitutes a part of budgetary procedure the public loses its share in the financial control of the school. He found that efforts in this direction still fall far short of being satisfactory and recommended that appropriate publicity be required by law. Ackerly and Spinning (235, 257) reported that mere publication of the budget served to check expenditures in Rochester. Copies of the budget of some twenty pages, containing halftone illustrations, charts, and letterpress, were carried into the homes by the children. The number of copies printed has ranged from 60,000 to 30,000 over a period of years. The publication of this type of budget at a cost of approximately five cents per copy has seemed to be a good means of developing an informed public

opinion with regard to schools. It is quite generally held among authorities that justification should be furnished for increases or decreases. Types of publicity used in connection with budgets were discussed by De Young (238).

Reusser (251) found that budgets are usually published in newspapers before adoption to allow for hearings and protests. Campbell (237) found nineteen states which require newspaper publication, either of the budget or of the notice of meeting for adoption, though not always in all districts. In some instances the budget is merely placed on file for inspection either as a matter of law or practice. Eleven states have statutory provisions for the reporting of school budgets at the annual school meeting which apply to one or more classes of schools. Sixteen states make provision for public hearings.

Peterson (249, 250) investigated the status and effect of public hearings on school budgets. Although twenty-five states have enacted some type of public school hearing law and eight others are required to follow a procedure which approximate it, none make adequate provision. The tendency to establish such laws has been positively accelerated since 1929. He found the response to hearings in 1936 was not good. One-half of the districts reported that no citizens were present at the hearing; the mean attendance was twenty-seven. As a result of the public's failure to take advantage of its opportunity, school budget hearings were of little or no value in a majority of city school districts. Hearings had little effect on budgets; of all city school districts 90.6 percent made no changes as a result of the hearing. In the judgments of 66.7 percent of the superintendents, public school budget hearings are desirable. Recommendations were made that laws be changed, if necessary, to include adequate provisions for the publicity of the school budget and its public hearing and that the hearings be held in advance of the beginning of the school fiscal year.

Reusser and Hamilton (252) found that with few exceptions courts have held quite uniformly "that even though a hearing is held and the public does appear and make suggestions, the board of education is in no way bound thereby." Flocken (240) held that if there are controversial matters in the budget it is wise to have a special public meeting giving persons representing all views a chance to speak.

Approval—Reusser's study (251) indicated that the budget is commonly presented to some individual or board for checking and correction of errors and for increasing or decreasing estimates. It is then presented to the budget making authority or the electors for final adoption, and finally to city, county, or state authorities, for making the necessary tax levies. That the board should have final authority to adopt the budget was pointed out by Campbell (237), Engelhardt and Engelhardt (239), and Tolle (258). Campbell (237) found that in only twenty of the thirty-five states considered was the entire responsibility for review and adoption placed upon the local board of education. The other fifteen either provide

that the local board share this responsibility with some outside body or place the entire responsibility on an outside body. In New Mexico where, according to Campbell, the state tax commission fixes the final budget allowances, Tolle (258) found that budget requests in general were not granted as made by boards of education.

Administration and Control

The studies of Campbell (237) and Reusser (251) indicated that the laws of most states place responsibility for the execution of the school budget on the board of education. Reusser's study revealed that while schoolboards are charged with responsibility for administering the budget in forty states, responsibility in practice is frequently delegated to the superintendent. Large numbers of districts in each of twenty-six district-unit states were found, however, in which boards of education must administer whatever budget there may be without the help of an executive officer. While in nearly half of the states boards of education were found to be partially dependent upon other agencies in the determination to their budgets, relatively few seek to exercise this control through the budget. Most states use a maximum tax levy limitation to control expenditures. Some states limit boards of education rigidly to the adopted budget. In others boards pay little attention to the budget after it is adopted, since the law does not compel them to live within it. Laws are less specific in matters of budget administration than in budget preparation, presentation, and adoption. Reusser and Hamilton (252) reported that "it seems to be quite uniformly held that the boards of education are in no way limited in their expenditures or levies as long as such levies do not exceed the statutory limit."

A number of significant recommendations have been made with respect to the control of budget funds. Campbell (237), Engelhardt and Engelhardt (239), Slater (256), and Tolle (258) proposed that the superintendent be given full authority to carry out the provisions of the budget. Campbell (237) held that once adopted the budget should be binding on all officials for the definite amounts which have been appropriated. To prevent expenditures from exceeding appropriations, various authorities urge that budgetary controls be provided for each ledger account (237, 238, 240, 248, 259). Flocken (240) proposed that whenever necessary, accounts representing encumbrances against appropriations be kept. He would place responsibility for recording the operation of the budget and preventing overdrafts on the person in charge of accounts.

The Finance Division of the New York State Department of Education (248) recommended that as a means of effective budgetary control, proposed expenditures be checked against appropriations to determine whether sufficient funds are available for the purposes concerned before making actual commitments. To facilitate control, all proposed expenditures, it is

pointed out, must be charged against the proper account. Unless this is done book balances will not represent the actual amount available.

Skinner (255) regarded accrual accounting as a "foundation rock" of budget control. He quoted the auditor of Morton Township, High School and Junior College, Cicero, Illinois, as follows: "The necessity of preparing a budget that sets forth accurately all items of income and a detailed analysis of anticipated expenditures, and the necessity of establishing a system of control that will effectively limit appropriations of funds to budget figures, cannot be overestimated. To the absence of such a budget and such a system can be attributed much of the responsibility for the financial stress which the board now faces."

Fowlkes (241) would have the business manager exercise "eternal vigilance" over the budget. "Admonition, warning, and notice of danger must be forwarded by the business manager to all school staff members who are in danger of violating the established budgetary procedure."

Restrictions which Slater (256) would impose are: (a) that it be made mandatory to administer the schools' activities in accordance with the budget as finally adopted; (b) that an officer responsible to the board certify that the necessary funds are available and that the proposed expenditure is in accordance with the budget before commitments are made; (c) that each major expenditure be reviewed before it is undertaken; and (d) that commitments and encumbrances be recorded against the related items of the budget.

Reusser (251) found in seventeen states which reported on the disposition of unexpended balances at least three methods in use: "(a) appropriating such balances to the next fiscal year; (b) lapse of appropriations or the reversion of any balance to a general fund; and (c) transferring such balances. Ten of the states reporting provide for carrying over of balances to the next year, and seven states provide for reverting of such balances to be redistributed in the next year's budget." De Young (238) held that there should be a margin of safety in favor of the child rather than the taxpayer, and that therefore the accumulation of modest balances is superior to the incurrence of deficits.

Needed Research

Further research is needed to determine the nature of the educational program which should be offered in various localities and under various conditions, together with a study of the factors involved in providing a suitable program. Research is needed also to determine how economies may be effected in educational expenditure. Improved planning will result when such information is available to every planning body.

There is a marked need for refinement in cost determination practices. Unit cost figures offered to the public commonly contain several variable elements whose weighting is unknown, thereby invalidating the figures for purposes of accurate comparisons. The Michigan Education Association

(247) pointed out that research is needed also to develop technics for adequate appraisal of the results of education so that costs may be measured in terms of product.

Reusser and Hamilton (252) pointed to the need for extensive and comprehensive research by persons trained in both law and education, or by educators working in conjunction with legal specialists in the field of school laws and their recodification. They pointed out that unless any contemplated piece of legislation is drawn so as to harmonize with the provisions of both school law and general law, its purpose may be defeated and it will merely add another block to the already confusing patchwork of school legislation. They expressed the opinion that educators may expect little relief from antiquated and contradictory laws until they are able to appear before legislative bodies with a complete legislative program.

CHAPTER V

Accounting: Financial and Property¹

CHARLES H. GILMORE

THERE has been little research in the field of financial and property accounting since the last treatment of the subject in the *Review of Educational Research* for April 1935. Most of the recent studies dealing with the problem simply present descriptions of accounting procedures and offer suggestions for the use of data made available by effective accounting systems.

Apparently during the period since January 1935, there has been improvement in the financial accounting systems of many local school units. This improvement has not been the result of basic research conducted during the period by state and local school officers but has resulted from the fact that accounting systems previously developed have been adapted to meet the needs peculiar to each state or local unit.

State Systems of Financial Accounting

Campbell (264), in what was primarily a budgetary study, reviewed briefly the recent trends in the development of accounting systems. He pointed out that since 1915 several states have attempted to develop state-wide accounting systems for local school districts. In some states, accounting systems are prescribed by state departments of education while in others local units are allowed to use their own discretion. In at least eight states the school accounting system is regulated by agencies outside the state education department. Campbell found from an examination of school laws and regulations of state departments of education that only fifteen of the thirty-five states studied required the use of a uniform accounting system for local schools, and in certain of these states all classes of districts are not required to conform to the state system.

Akerly (260) expressed the opinion that almost every school system is suffering from lack of improved accounting methods. He believed that national, state, and local officers should work together in developing a better system of cost accounts and greatly improved budgets. Such improvements are necessary in order to make progress in cost finding and in the preparation of comparative statistics.

Cammack (263) reviewed the procedure followed in Kentucky in developing and inaugurating an accounting system for the school districts of the state. Prior to July 1933 there had been little regularity in financial procedures with the result that the records of expenditures for public education were incomplete. After two years of study of the financial

¹ Bibliography for this chapter begins on page 200.

procedures, an accounting system was developed which was adopted within the course of a year by every district in the state. The records included: (a) "the record book" for minutes of board of education; (b) tax collector's report for a monthly report to local board of education; (c) treasurer's monthly report to local board of education; (d) the financial record book for receipts and expenditures; (e) the budget form; (f) the order on the treasurer; (g) requisitions, purchase orders, and claims; (h) monthly report form; and (i) annual financial report.

Cammack pointed out that the accounting procedure had resulted in improving budget practices. Since all the districts were under a uniform system, for the first time, comparable data are available and the state department of education is better able to assist local units in financial administration.

The Florida School Code Committee (269) emphasized the necessity for adequate accounting by trained personnel. It called attention to the fact that three-fourths of all counties spend more than one hundred thousand dollars annually, while six counties spend from one to four million dollars annually. An analysis of the present accounting system revealed the chief limitation to be that expenses are charged when they are paid instead of when they are incurred, with the result that expenses of one year are often charged to the succeeding year, thus distorting the apparent expenses. Several proposals were made for improving the system: (a) expenditures should be charged to the fiscal period in which they were incurred; (b) the system of accounts should be prescribed by the state board of education; (c) the system should be extended to include petty cash, student activity funds, and cafeterias. In regard to student activity funds the Committee proposed that the custodian of each fund should keep an accurate account of monies received and disbursed and make a detailed report to the county board of education each month.

The Finance Division of the New York State Education Department, after several years of field service among school districts in accounting, evolved a bulletin on school accounting documents (276) for the voluntary use of school districts. This bulletin dealt with procedures and forms—the systematic arrangement and use of official documents related to business transactions. It is not a manual dealing with the bookkeeping phase of accounting. Experimental work in the bookkeeping area is now being carried on in selected districts. In 1937 basic minimum regulations concerning accounting were prescribed by the commissioner of education for all school districts except cities. The past and current developmental work in accounting in New York is important as a combination of research and field service in the area.

Accounting and Budgeting

In recent years, as improvements have been made in business practices, more consideration has been given to the linking of accounting and budget-

ing. Theiss (280) defined accounting as the science of recording business transactions properly and accurately, and of making interpretations of the records for management. Budgeting applies cost accounting principles to the control of all operations.

De Young (266) pointed out that the interdependence of accounting and budgeting is not always realized by many school officers. The budget provides the initial entries in the account books and serves as a basis to check "anticipations against actual occurrence." A complete accounting procedure, therefore, becomes the basis for effective budget making and budget execution, or control. He calls attention to the fact that "although the tendency in accounting is to emphasize dollars and cents, one aspect of it is receiving more and more attention in recent years; namely, educational accounting, one phase of which, child accounting, is inextricably related to genuine budgetary procedure."

De Young's discussion of cost accounting emphasized the value of unit costs in public school accounting and budgeting but pointed out that those responsible for budget making do not generally convert them to use. The compiling of unit costs is expensive; they are difficult to calculate, and necessitate adequate clerical help and copious data from former years. He emphasized the need for further research to develop cost accounting procedures which may be applied by the administrators in smaller school systems.

Financial Accounting for Cafeterias

Bryan (262) emphasized the fact that unsuccessful management of school lunchrooms and cafeterias constitutes an admission of inability to deal with changing conditions. Records for cafeterias relate to three major aspects of food-cost control, namely, control of personnel, control of food, and control of money. Records not ordinarily considered as a part of the financial accounting system are deemed essential in food-cost control. For example, kitchen and service records, such as menu and counter records, are required for accurate knowledge of amounts and costs of foods prepared and served.

Bryan presented typical record forms proposed for a small cafeteria operated by an individual school; a large cafeteria operated in the same manner; and a centrally managed system of cafeterias. Facsimiles were presented for such records as: request for price quotations, purchase order, daily cash record, voucher, cash-book, and requisition. In developing these record forms, special consideration was given to the probable time available for record keeping by those managing cafeterias of the various types. A less complex system of accounting was outlined by Quast and Alcott (278).

Gregg (270) pointed out that the success in carrying out the policies for the cafeteria is due principally to the procedures of cost accounting and purchasing. In the Pittsburgh system weekly and monthly statements

are made to all schools as a basis for cost accounting. The data shown on the weekly statement are: (a) receipts from sale of food, (b) cost of food used, and (c) percent cost of food. From this weekly statement it can quickly be determined when costs are running too high. The cause can be found and corrected at once. A similar procedure was proposed by Schumann (279) and Idell (272) except they recommended that a detailed record be kept of the *daily* food and overhead costs so that expenses can be compared with daily receipts. A monthly statement is then prepared which gives all information necessary to determine the financial status of the cafeteria.

Property Accounting

Weller (281) emphasized the need for a periodic study of the business department of each school system. He listed the following as the essential questions for which answers should be secured in an analysis of property accounting: (a) Is a property ledger kept in which there is an itemized property register that shows the capital values for all buildings, sites, and equipment? (b) Is there an annual inventory of all school property? (c) Is depreciation and appreciation of plant computed annually?

Baldwin (261) pointed out that "... the problem of accounting for property dollars does not usually call for a quick solution and is, therefore, laid aside in the press of more immediate things, to await a more convenient season." An appraisal of school property usually costs less than one half of 1 percent of the "Cost of Reproduction New" of the properties appraised. In very large properties the cost may be as low as one tenth of 1 percent. Baldwin called attention to the fact that once the inventory data are available the details may be priced and repriced from time to time as the basis of value changes.

Hibbert (271) found that inventories of school equipment are taken by approximately three-fourths of the large city school systems, most of them being made annually. He proposed a perpetual inventory of both supplies and equipment. He pointed out that such an inventory permits of frequent checking of supply costs and makes it possible to have a report monthly, or at any designated period, indicating the cost of supplies delivered to schools. He also proposed that "equipment inventories should be kept for each department of each school."

De Young (266) pointed out the need for a property accounting record involving both the value and the depreciation of each item listed. Such a record, combined with a periodic appraisal of the property by an outside specialist, aids budgeting through careful calculation of depreciation costs.

Bryan (262) proposed for small cafeterias that a monthly physical inventory of stores be used to replace the perpetual inventory which should be used for large individual cafeterias and centrally managed organizations. Facsimiles were presented to show the types of property accounting forms that are proposed.

According to Farnam (268) physical inventories of school lunchrooms should be taken twice a year. Space should be provided to show the loss since the last inventory, and the estimated needs for the next semester. In addition to these facts the unit price and the total price of each item should be recorded. From these data the depreciations may be calculated and a reserve fund may be built up for replacements.

Survey of Business Administration

Engelhardt and Engelhardt (267) pointed out that "the administrative officers of the public schools must be constantly on the alert in the justification of their procedures and practices. Facts must be at hand, or readily available, for the maintenance of a favorable public attitude." These authors developed standards for the objective investigation of the business affairs of school systems. These standards were based upon research when it was available, on writings of experts in the field, and on the judgments of instructors. Scores, which were applied to the items, were calculated from judgments of more than 200 school officials.

In the system suggested by Engelhardt and Engelhardt financial accounting is analyzed under: (a) accounting system, (b) completeness of records, (c) separateness of funds, (d) bookkeeping efficiency, and (e) financial statements. It is allocated 95 points out of a possible 1,000 for the entire business administration. In the same way, property accounting is analyzed under: (a) scope, and (b) methods; it is allocated 20 points out of 1,000.

Weller (281) listed fourteen major items which should be studied in an investigation of the business department of a school system. Among these items are: (a) payroll procedure, (b) purchasing management, (c) property accounting, (d) insurance, and (e) cafeteria. He listed the questions that should be answered for each of the major items.

Financial Accounting for Institutions of Higher Education

The National Committee on Standard Reports for Institutions of Higher Education (275) pointed out that the financial data for such institutions must be suitably analyzed, and items which differ in purpose and use must be segregated rather than merged into a meaningless total. The accounts should be so classified that each of the different items will have a definite meaning and will fit into its proper place in the whole picture.

The Committee emphasized the fact that two distinct functions should be performed by an effective accounting system, namely: (a) the furnishing of basic data for reports concerning the financial conditions and the operations of the institution; and (b) the determination of the fidelity of the officers responsible for the handling of institutional funds.

The steps involved in the procedure of making available the data needed by the directing bodies and the controlling executives were described by the Committee.

Morey (273) suggested six general features that should be kept in mind in considering the important qualities of the bookkeeping system:

1. The accounts should be so arranged as to produce as readily as possible the information needed for the proper kinds of reports for all purposes.
2. So far as possible, the content and arrangement of the accounts should correspond to the terminology and arrangement of the budget.
3. The financial reports should agree with the books, and should be susceptible of ready reconciliation with them.
4. The records and books should be coordinated so as to form a unified system, following the double-entry plan, and should constitute a system that measures up to sound principles of accountancy.
5. The records should be complete as to all essential facts.
6. The procedures should be familiar to more than one person and, therefore, should not be dependent solely on one individual for successful operation.

Summary

Increased consciousness among federal, state, and local educational officers of the need for comparable financial data from the various local units has been a stimulus to improve accounting procedures. The situation in Kentucky as described by Cammack (263) is an example of such improvement. Apparently there is still a need in many local units for improved accounting practices. Property accounting seems to be one of the phases which has not received adequate consideration. One of the pressing needs seems to be to improve accounting procedures so that refined data will be available for unit cost studies. Further research should be conducted to develop cost accounting procedures which may be applied by those administering the smaller school systems.

CHAPTER VI

Educational Costs and Their Analysis¹

CHARLES H. GILMORE

THREE OBSERVATIONS stand out in an analysis of the recent cost studies: (a) The economic depression resulted in at least a temporary recession in the trend of rising educational costs. (b) There are extreme variations among the states as well as the local units in costs per pupil, for similar items of expense. (c) More attention is being given to the high cost of the small school when service rendered is taken into consideration. A number of states are concentrating on the elimination of the small school in an effort to expend funds so as to provide a more effective program.

Changes in Cost Per Pupil

A report by Blose and Deffenbaugh (283) showed that in 1934 the annual cost per pupil in average daily attendance ranged from \$22.60 in Arkansas to \$124.13 in New York. There were twelve states in which the cost was less than \$45.00 while there were seven states in which the cost was more than \$90.00 per pupil. The serious effect of the economic depression on the financing of elementary and secondary education is shown by the data presented. In 1930 the cost per pupil in average daily attendance for the United States was \$86.70; in 1932, it was \$81.08; and in 1934, it was only \$67.48. From 1932 to 1934, the cost per pupil decreased in every state except Mississippi. The decrease ranged from 3.4 percent in Alabama to 31.5 percent in Michigan. There were nineteen states in which the decrease per student was more than 20 percent.

In an analysis of costs per pupil in city and exempted village school districts of Ohio for 1929-30 and 1934-35, Holy (293) found decreases similar to those mentioned above. The total current expense per pupil decreased in the cities from \$104.89 to \$81.10, and in the exempted villages from \$101.84 to \$63.83.

In a study of the financing of education in North Carolina (296), it was shown that the cost per pupil in average daily attendance increased from \$10.72 in 1910 to \$42.67 in 1930, but decreased to \$25.29 by 1935. Similarly, it was found that only \$5.97 was spent for each pupil enrolled in the schools of Tennessee in 1901; by 1931 the cost was \$42.36, but in 1936 it was \$35.00 (300). Like trends were found for Ohio (297), and for Arkansas (282).

A number of studies have shown variations in the cost per student among the districts of a state. It was shown that two county school districts in Kentucky spent less than \$15.00 per pupil in average daily attendance

¹ Bibliography for this chapter begins on page 201.

while the cost in one independent school district was approximately \$134.00 (295). One district in Utah spent an average, over a five-year period, of \$38.37 per pupil in average daily attendance while another district spent approximately \$100.00 (302). In a study of the local units of Tennessee (300), there was shown a range in cost per elementary pupil from \$12.19 to \$54.57. It was found that 83.8 percent of the local administrative units in Arkansas spent 20 cents or less per pupil per day for current expense, while only 1 percent had a cost of 51 to 75 cents, and one unit had an expenditure of from 76 cents to \$1.00 (282).

In a study of expenditures per pupil in urban and rural schools, Herlihy (292) reported large variations for urban and rural schools in different sections of the country. In comparing per pupil costs for the six major items of current expenses for all sections combined, he found that for every item except coordinate activities and auxiliary agencies the urban schools spent more than twice as much per pupil as did the rural schools.

In an analysis of trends in public school costs in New York State, Soper (299) showed that in 1870 it cost the people approximately \$20.00 a year to provide schooling for each child in average daily attendance. By 1920, just fifty years later, the per pupil cost for total expense had risen to approximately \$80.00. In 1930 the cost was \$209.74, but in 1934 it had dropped to \$156.48. Increased high-school enrolment, higher salaries for teachers, and an improved educational program were in the main responsible for the increased cost. Such indications of an improved program as the following were found: From 1880 to 1933 the value of school property had increased 30 times; the number of volumes in the public school libraries had increased seven times. Teachers as a group are better prepared for their jobs than those employed even ten years ago. Medical inspection, nurse service, dental service, and transportation, which are now general, were seldom provided prior to 1918.

Costs Per Pupil for the Six Major Items of Current Expense

Comstock (286) found extreme variations in annual cost per pupil for the various items of current expense even among the cities of comparable population. For example, in 1936 the range in the annual cost per pupil for general control among the cities of over 100,000 was from 94 cents to \$6.24; for instruction, from \$38.23 to \$113.46. Some cities apparently are doing very little to maintain their plants. For the cities between 30,000 and 99,999 the range per pupil for maintenance was from 37 cents to \$9.26.

Of the past six years, 1930 shows the greatest per pupil cost for each of the major items of current expense in all groups of cities except those of the highest population. In the cities of 100,000 population and more this was also true for the cost of general control, operation, and maintenance. From 1935 to 1936 there was a decided increase in each item of current expense in the average of the combined groups. This increase ranged from

5.8 percent in the cost of operation of plant to 15.5 percent in the maintenance of plant.

In a study of Utah school districts (302), it was found that it cost from five to seven times as much per pupil for general control in some districts as others. The conclusion was that the services purchased by these expenditures also differ greatly in the degree of continuous trained leadership provided. The data regarding expenditures for instructional service revealed that four districts spent twice as much for instruction as did the lowest. The range in per capita costs among the districts was from \$27.45 to \$63.37. After a study of the expenditures for coordinate activities he concluded that there seems to be no adequate minimum program and standard to guide the expenditures of Utah districts for this item. Similar conclusions were reached regarding the other major items of expense.

It was pointed out that an analysis of the trends in current school costs for Arkansas shows clearly the growth of the school system from small to larger schools with the increasing expenditures for items other than teachers' salaries (282). In 1900, 90 percent of the current operating cost went to salaries for teachers while in 1935 the allocation was 74 percent. In 1930 transportation accounted for 3.5 percent of the current expenditures, while in 1935 it had increased to 7.5 percent. In other words, as schools have become larger the expenditures for maintenance, operation, insurance, instructional materials, and administrative expense have tended to increase while the proportion of funds allocated for teachers' salaries has proportionately decreased.

Urbanization and Public School Costs

Burke (284), in a study of New York State, found that the average per pupil cost for elementary and secondary education in areas over 25,000 located within the New York metropolitan area was \$140.00. This cost was found to be 25 percent higher than that of cities of over 100,000 in the United States; 30 percent higher than that of cities 10,000 to 99,999; and 39 percent higher than the cost in cities of 10,000 to 29,999.

Burke summarized his findings as follows: "(1) The per pupil cost of public day school elementary and secondary education in New York State is determined by the cost in the New York metropolitan area. (2) Per pupil costs for public education in large metropolitan areas like New York and London are much higher than those in the smaller urban centers. (3) The cost per pupil for public education tends to decrease with the size of the urban centers. (4) Comparisons of per pupil costs are dangerous unless all related facts are available."

Cost of School Transportation

It was discovered that even though the current operating cost for transportation in North Carolina had increased from \$284,884 in 1921-22 to

\$1,883,744 in 1934-35, the cost per pupil had decreased during this period from \$13.09 to \$7.00 (296). The average daily cost of transportation per pupil in 1934-35 varied among the counties from 2 cents to 8.5 cents. Data were presented to show that the cost per pupil for transportation had decreased over a period of years in Kentucky (295). In 1929-30 the annual cost was \$19.50 while in 1934-35 the cost was \$13.06. Considerable variation was also found among the counties in the amount expended per pupil for transportation, the range being from \$5.96 to \$69.75. There was found a similar variation among the counties of Tennessee, where the range per pupil was from \$2.73 to \$39.40 (300). The average for the entire state was \$13.58.

In a study of local school units in Ohio, Holy and McKnight (297) revealed that the state average for the cost of transportation per pupil was \$20.23. In one county the cost figures for the various districts ranged from \$13.54 to \$53.60. The authors concluded that transportation costs can be lowered and better service can be rendered when buses are owned by boards of education. In a study of the California schools (285), the cost per pupil for transportation in the state was found to be \$16.41 per elementary pupil and \$22.32 for each high-school pupil. There was found to be a range among the counties from \$7.11 to \$48.18 per elementary pupil and from \$6.55 to \$75.91 per high-school pupil. The Florida School Code Committee (287) compiled data which showed variations similar to those mentioned above. In 1925 the annual cost per pupil for transportation was \$29.11, while in 1936 the cost had been reduced to \$16.70. The range in the cost per pupil per day ranged from 4 cents in one county to 29 cents in another.

Cost of Small Schools

In Kentucky there is apparently little relation between size of elementary schools and instructional cost per pupil (295). The one-teacher school cost approximately as much per pupil as did the six-to-nine teacher school. An analysis of the costs for high schools showed that the larger schools have the lowest per capita instructional costs. It was pointed out that the instructional cost per pupil in the white elementary schools of Tennessee varies inversely with the size of school (300). A similar situation was found with reference to the high schools. In studies made in Illinois (294) and in Ohio (297), the conclusion was reached that the small school was too expensive for the service which it is rendering.

A study conducted by the Wisconsin Teachers Association (303) sought an answer to the question, "How much money (if any) could be saved by combining the smaller rural schools?" It was found that the average cost of maintaining a one-teacher rural school, with 15 or fewer pupils, in Wisconsin during 1933-34 was \$828.50. The average cost of maintaining a transport school was \$720.77. (A transport school is one which does not employ an active teacher but the board arranges for the instruction of the

children in a neighboring district.) It was determined that by eliminating 1,000 schools of 15 or fewer pupils and transferring the pupils to other districts, \$525,000 per year could be saved.

Gaumnitz (288) found that there are rural schools in which the education of a child is costing the public more than \$1,000 per year. According to his findings, there are 250 schools which serve a total attendance of one child each, while there are 7,000 schools which have five or fewer pupils. He pointed out that only teachers with limited training can be employed in these schools because salaries are necessarily low.

Gifford (289) made a study of 24 schools having secondary departments in Jefferson County, New York, to determine whether or not the cost per pupil in public schools maintaining secondary departments increases or decreases as the size of the school increases. He also studied costs with reference to the scope of the curriculum. Instructional costs per pupil were found to be highest in schools of less than 150 pupils, lowest in those of 150 to 700 pupils, and medium in the schools which had more than 700 pupils. Total costs per pupil followed the same pattern.

A study of small schools somewhat different from those already discussed was conducted by Powell (298). The main purpose of his investigation was to discover the relation between current school expenditures and educational outcomes in one-teacher schools. The equivalent-groups method of investigation was used. For intensive and detailed investigation, one county was selected as typical of the state. The one-teacher schools of the county were divided into a higher expenditure half and a lower expenditure half. The groups were then equated in supervision and "outside of school" influences in general. By the use of tests the pupils were measured in certain traits. The findings of the study showed that the pupils in the higher expenditure groups were superior in every measure made. Expenditures and returns in the form of pupil achievement were found to rise and fall together.

Junior High-School Costs

Gooch (290) attempted to find an answer to the question, "What are the factors affecting the cost of education in the junior high-school type of organization as distinguished from the traditional type?" The study was limited to current expense per pupil in average daily attendance in junior high schools organized on 6-3-3 basis, in cities of 5,000 or more, in six eastern states. The findings indicated that the per pupil costs in Grades VII to IX are substantially greater than those in the Kindergarten to Grade VI regardless of whether a school system is organized on the 8-4 or 6-3-3 basis. Gooch concluded that the data suggested that in actual practice there are no inherent factors in either the 6-3-3 or 8-4 types of organization which result in significantly different per pupil costs for current expenses.

Cost of Textbooks and Supplies

Thompson (301) conducted a study of the per pupil expenditures for textbooks and supplies made by the towns in Connecticut. The analysis covered the period from 1929 to 1935. It was found that one town spent an average of 50 cents a year per pupil for elementary textbooks while another spent \$4.57. For stationery and supplies the range was from 41 cents per pupil to \$5.58. The cost of educational supplies varied among the school districts of Utah from 96 cents per pupil in one district to \$4.85 per pupil in another (302). The annual expenditure per pupil for textbooks also varied from no expenditure in one district to \$2.77 in another.

Suggestions for Future Cost Studies

An analysis of the cost studies which have been made indicates a need for investigations into the reasons for the extreme variations among the local units in the cost per pupil for the various items of current expense. For example, there were variations among the counties of Kentucky in the amount expended for transportation per student from \$5.96 to \$69.75 (295). Such differences call attention to the problem of equalizing instructional opportunity, but they should be supplemented by more detailed studies describing the conditions and results attendant upon these practices.

There is need for a more thorough investigation of all related facts before comparisons of per pupil costs are made. Burke (284) pointed out that consideration should be given to such problems as: (a) the kind and quality of services rendered; (b) the climatic, geographic, and other factors which affect costs; and (c) differences in the methods of accounting for school funds.

CHAPTER VII

Financial Reporting¹

W. W. THEISEN

PREVIOUS SUMMARIES OF RESEARCH in the *Review of Educational Research* which bear directly upon the subject of financial reporting have been limited to Alexander's single page review (305) of research in the field of public relations in the issue for April 1932. He pointed out that real researches applying to fiscal reporting had been very few in number and that there had been little scientific evaluation of materials and methods. Researches since then bearing on this field have been no more numerous. A brief survey of some of the earlier studies and discussions in the general field of school reporting may not, therefore, be out of place in this issue.

Early Efforts To Improve School Reporting

Students of educational administration long ago began stressing the need for improving the quality of school reporting. Among the early ones to do so were Snedden and Allen (345), Strayer and Thorndike (347), Cubberley (309), Hanus (316), and Alexander (307). Alexander (307) cited Snedden and Allen's conclusion that school reports were not read because they were not intelligible to the ordinary citizen. He referred also to a study by Hanus in which prominent citizens in Boston were asked whether they had seen a report of the schoolboard or of the superintendent within the last two years. Approximately 70 percent of those who replied answered "no." Alexander added: "The school executive has as great need to appeal to the layman with statistical matter on schools as do any of the publicists in other fields. In particular, he has practically to make the same appeal for funds as do workers in these other fields."

Cubberley (309) wrote: "The public only takes seriously those presentations of school needs and conditions which are based upon carefully-collected and well-interpreted facts. Only by the use of such data, set forth by means of tables, colored circles, curves, black-line graphs, or other graphic representations, can the people be made acquainted with the whole work of the school, be made to realize where the school breaks down, be brought to understand the necessity of certain adjustments within the school, be brought to appreciate the propriety of expending such large sums of public money upon education."

Among a later group who expressed similar views were: Neale (335), Reynolds (341), Hines and Jones (317), Miller and Charles (324), Moehlman (327), Farley (313, 314), and Engelhardt (311). Farley (313) charged in substance that state reporting had advanced little in three-

¹ Bibliography for this chapter begins on page 202.

quarters of a century following Horace Mann. Despite the repeated counseling and advice of students in the field, it is only in widely scattered instances that present school reporting approaches a satisfactory standard. For reasons not yet clearly established, school executives in the main have been slow to follow the advice given or to apply the principles and rules found effective by commercial advertising and sales promotion agencies. As expressed by Engelhardt (311): "Commercial enterprises, as is to be expected, have made the most rapid strides in the use of advertising and publicity in bringing their goods and services before the people. Every known science and art have been brought to bear on the problem and have made some contribution to this field. Increased competition in business has been fundamentally responsible for the conspicuous progress which has been made in advertising methods. Education has been somewhat slow to appreciate fully the possibilities in publicity and the obligations the schools have in bringing to their patrons the problems, the work, and the achievement of the schools."

A possible explanation of the failure to make general application of advertising technics was offered by Miller and Charles (324) who expressed the view that "The public school system as a tax-supported institution in a democracy cannot set up and expend an advertising budget to present the advantages and claims of the education it offers. Legal and moral justification of such expenditure could be seriously questioned. Such a process would necessarily involve a selection of the facts to be presented in the advertisement, and selection of facts by those in charge of the schools is closely related to a censorship fundamentally un-American. The public, willing enough to have presented to it the advertising of private business concerns, is of a different temper when it comes to accepting the advertising, paid for out of public money, of selected facts which the administrators of public business choose to set before it."

Whether from lack of understanding of efficient reporting technics or of the possible bearing which adequate reporting may have upon financial support for schools, or whether from reluctance to apply commercial practices, or otherwise, neither high-grade forms of school reports nor wide dissemination of such reports are common in administrative practice.

Helpful suggestions for improving the quality of financial recording and reporting were included in a bulletin prepared by the Research Division of the National Education Association in 1927 (334). In it Engelhardt and Mills (334: 233-44) outlined essential financial records. Meredith (334: 284-86), in discussing state reports to the public, recommended that the state office of education from time to time issue special research reports based upon financial studies of pupil costs. Phillips (334: 289-321) discussed the report forms used by the United States Bureau of Education for collecting fiscal data from state and local school systems. These forms with their accompanying instructions, it is commonly agreed among school administrators, have served to bring about greater uniformity and comparability in school costs.

The point of view of the state with reference to reports was stated by Simpson (334: 280-83): "Whatever may be the extent of the state department's charge for direct educational administration or the administration of controls, it must be admitted that a system of reports presenting cogent data will be essential as a basis for action. Furthermore, the all important function of leadership, whether it be concerned with supervisory service, research or publicity, will be strong or weak in proportion to the extent to which this leadership is based on adequate data from the local units for whom this service is purposed. Leadership service must know where local units are, educationally, before it can proceed to improvement."

Ford (315) recently stated the case for small cities: "Superintendents in large cities present annual reports to their boards of education, but few superintendents of smaller cities have done so, probably because they believe that in a small community, board members are intimately acquainted with the details and policies of the school system. Experience over a number of years has convinced me that there is need for an annual report in small cities and even in villages."

Principles and Objectives

Underlying principles and objectives of educational interpretation were treated in the Fifteenth Yearbook of the Department of Superintendence (330). Four principles were listed as fundamental: (a) educational interpretation is a proper and an important part of a modern educational program; (b) it includes a judicial presentation of things as they really are as well as a presentation of things as educators hope they will be; (c) it is democratic in spirit and in operation; and (d) it should be an intrinsic rather than an extrinsic part of the educational program.

Some guiding principles for financial reporting may be drawn from Farley's study (314) of what to tell the people about the public schools. In point of interest, news about business management and finance was ranked no higher than tenth among thirteen topics of school news by 5,067 patrons in thirteen cities. In every city of the study except one a negative correlation was found between the interests of school patrons in school news and the amount of space allotted to the several topics in the press. Alexander (305) pointed out that this low interest in school finance would probably not hold now. Farley (314) concluded that "the first step toward the improvement of publicity is its quality, not the increase of its quantity nor the number of media through which it passes. The most important element in the quality of publicity is its content." Farley (313) would make the superintendent responsible for all phases of publicity.

Moehlman (328), in his recent book, *Social Interpretation*, placed a new emphasis upon the "partnership concept of American public education," whereby the schools are viewed as a social institution to serve the people's needs, and, accordingly, must recognize the people's interests and wishes as basic. In so doing, however, the school personnel must also

recognize their fundamental obligation to keep the people thoroughly informed, or "educated," concerning what the schools are actually doing, and why.

Criteria and Standards

Criteria for evaluating superintendents' reports were developed by Clark (308). These required: that the report be endorsed by the board of education; that it include all data pertinent to the problems set forth and consistent with the established purpose; that it promote the growth and development of the pupil; that it be timely in presentation; and that it be planned, organized, and presented in a way adapted to the abilities and attitudes of the audience.

Criteria for a program of interpretation proposed by the Fifteenth Yearbook (330) were: "(1) *Is it interesting?* If educational interpretation is to reach most individuals, then it must compete with dozens of private and public agencies in capturing attention. Without attention the message is lost (2) *Is it understandable?* . . . A tendency of educators is to attempt to convey their message through the use of pedagogical terms (3) *Is it repeated frequently?* A school publicity story worth telling . . . is worth repeating. In fact, there is psychological evidence that it must be told again and again (4) *Is it satisfying?* . . . More than merely being accurate and reliable, the program of educational interpretation should be satisfying to the public (5) *Does it reach everyone in the community?*"

One of the requirements on the score-card developed by Engelhardt and Engelhardt (312) is that there be audits and financial statements at appropriate intervals. With reference to audits there must be: (a) an annual audit covering all accounts including the internal accounts by a disinterested professional certified public accountant; (b) or a state audit at a time not known in advance to local school authorities, by a member of the state department of education; and (c) publicity in school reports and local papers for all audits. The score-card further calls for monthly and annual reports of current receipts and expenditures on forms that follow the ledger distribution, showing budgetary balances for each account with essential supporting data; periodic and annual statements showing complete data regarding bonds and loans, the interest thereon, and sinking funds; and periodic and annual statements of all trust and special funds reported separately (312).

A committee of the National Association of Public School Business Officials (329) stated that the schoolboard and the public expect the accounting officer to have available: (a) a summary of the payments for each major function and the percent each is of the total; (b) a summary by each school of payments distributed to instructional activities—directly where possible and prorated where necessary; (c) a rank tabulation of schools to show maximum, median, and minimum costs for "current

expenses," using weighted average daily attendance and 1,000 pupil-hours as factors; (d) a plan for distributing all "current expense" payments within a school to grades and subject-taught groups for those who may wish to do so.

Giving Assurance of Proper Stewardship

Certain aspects of a study of the safeguarding of school funds by Linn (319) are pertinent for purposes of financial reporting. Among measures in a broad program for the protection of funds he listed audits, financial statements, reports, and publicity. He pointed out that an audit tends to develop greater confidence in the school administration. He observed that a system of financial statements and reports not only aids in checking up on the stewardship of officers responsible for the care and management of funds, but makes it possible to locate errors or expose wrongdoing. It also provides information for use in the development of unit costs and their computation, and makes possible the carrying out of the educational program with less waste. When it creates the impression that funds are being closely guarded, it has a wholesome moral effect.

The Finance Division of the New York State Education Department (338), as one step for the protection of district funds, recommended publicity of the treasurer's accounts, and a system of financial reports both by the treasurer and the accounting officer. At the close of the fiscal year the board of education should provide for the audit of the treasurer's records in order to determine that they have been accurately kept, and that all district funds have been completely accounted for.

Uses of Unit Cost Figures

"Unit costs should be used for establishing efficiency and economy in administration. . . . Briefly . . . the value of unit costs lies in the following points: (a) they furnish a scientific basis for compiling the budget; (b) they point out to the executive the place of attack when the objective is to reduce expense, or when unjustifiable variations between departments or buildings seem to exist; (c) they reveal strength or weakness in a school system by indicating whether the more essentials or the less essentials are emphasized; (d) unit costs by functions, departments, and objects, are an index for evaluating school service, and protecting the taxpayer against the encroachment of abnormal tendencies; and (e) unit costs, in general, aid to set up standards of correct practice, to formulate an index for efficient and economical management, and to give the executive, the schoolboard, and the public a ready answer to the ever increasing inquiries regarding public school expenditures" (329). However, "unless the executive actually makes use of unit costs the expense of securing minute data and compiling elaborate tables of information cannot be justified" (329).

Various studies calling attention to the need for accurate cost data, as a basis for financial reporting, were reviewed in the *Review of Educational*

Research for April 1935 (343). Variable factors involved in school cost comparisons were pointed out by a committee of the Michigan Education Association (323). The practice of appraising school systems on the basis of raw costs was deemed "unsound in principle and unfair in practice," for it assumes "equal valuation, equal needs, equal efficiency, equal personnel, equal service, and equal products." Forty-nine possible variables entering into cost comparisons were listed, including such as: size of the district, the distribution of children by ages, the percent of pupils in public and non-public schools, the index of purchasing power, the ratio of assessed to true valuation, per capita wealth, building operating and maintenance policies, the educational service rendered, the quality of the educational product, etc.

Standard Units

The National Association of Public School Business Officials (329), quoted above, attempted to carry the determination of unit costs a step beyond the common practice of computing such costs solely on a basis of average daily attendance. *Gross average daily attendance* cost was supplemented by *weighted average daily attendance* cost and 1,000 *pupil-hour* cost in each main classification and function of expenditure. The aim was to make possible the computation of per-pupil hour costs for grades and subjects, taking into account both attendance and the time element. It was claimed for the *pupil-hour* (one clock-hour) factor that it "smooths out all of the time variables incidental to varying numbers of school days, the varying lengths of daily sessions in different instructional activities, and finally the time variables within the same activity due to part-time, double-session, etc." Applying the method to actual figures for a large city showed that a "raw" aggregate daily attendance figure of 1,113,105 attendance units became 1,065,941 units when adjusted to standard daily sessions of five hours, and 1,038,140 attendance units when further adjusted to 191 actual sessions for the calendar year.

Moe and his staff (326) developed a "Standard Enrollment Unit" for use in obtaining comparative costs for each part of the curriculum. This unit represented one pupil enrolled in one school subject for five standard 45-minute class periods per week for 180 days. Advantages claimed over more commonly used measures are that it includes the two elements of pupil-load and instructional time and can be used for the allocation of school costs in particular programs.

Appraising of Reporting Practices

There is a paucity of research information as to the relative effectiveness of various financial reporting practices. Efforts at appraisal of either general or financial reporting for schools have usually been limited to comparisons and contrasts with successful commercial advertising or news dissemination practices. Peterson (339, 340) reported almost complete failure of public

budget hearings as a means of attracting public attention. Spinning and Akerly (346) reported that the Rochester practice of distributing its attractively illustrated budget served to develop an informed public opinion and to check expenditures.

The relative merits of well-planned continuous publicity programs and intensive campaigns for funds have been discussed (313, 327). Intensive publicity campaigns as a means of focusing public attention upon the financial needs of the school program have received both praise and condemnation at the hands of students of public relations (306, 313, 327). While granting that some measure of appraisal is afforded by their frequent success, some students hold that campaigns are likely to be followed by undesirable repercussions. Moehlman (327), before the depression, pointed out that such campaigns, when intelligently conducted, seldom failed in their objectives, but regarded a continuous public relations program as more effective in winning sustained public support. "The average citizen is apt to develop a more sustaining and intelligent interest in the schools when he has them constantly under consideration. The continuous stream of easily comprehended information that develops as a result of a constant effort to inform, bears fruit that increases in quality and in quantity over a period of years." Some have held that the need for campaigns which are designed to cope with emergencies would seldom arise were a continuous program of publicity in effect (313, 327).

Lasswell, Casey, and Smith (318) listed the research studies of the effects of commercial advertising. Particularly suggestive for educators are those which report efforts made to measure such matters as the attention, interest, and memory, value of given materials, the value of color, and the value of white space.

Some suggestions for possible procedure in evaluating the effectiveness of financial reports may be gained from Sims's study (344). Using two groups equally favorable in attitude at the outset, and employing Thurstone's technic of "equal-appearing intervals" he measured the effect of having one group read a convincing piece of propaganda for the TVA, and the other group read three selections against the TVA. The effect of the propaganda for the TVA was to make the group even more favorable, while that of "the Power propaganda" had the opposite effect. The changes in both cases were statistically significant, being not less than five times the probable error. Exposure of persons to *both* types of material made no noticeable change. Not all persons, however, in either group were influenced in the same direction. In a check made three months later the changes were found to have a considerable degree of permanency.

Illustrations of Reporting Possibilities

The possibilities of both general school and financial reporting are to be observed among scattered reports currently issued by superintendents and boards of education. Illustrations of attractive, well-illustrated annual

reports are given in the Fifteenth Yearbook of the Department of Superintendence of the National Education Association (330). It was observed: "Unless a report is read, it is a waste of time and money to issue it." Long tables of attendance and financial facts do not appeal to the average reader, altho charts and graphs conveying the same information may be made most attractive. Photographs of school activities can be made to 'tell a story' and to appeal to the esthetic sense of proportion, placement, and lighting. Examples of an attractive use of illustrations and charts are to be found in the reports of superintendents of schools in the following cities—Mount Vernon, New York (1932); Camden, New Jersey (1934); Fostoria, Ohio (1933-34); Minneapolis, Minnesota (1935); and New York, New York (1935). These are but a few from the many which might be cited but the total number of annual reports which conform to principles of art and advertising is remarkably small."

Among other illustrations of outstanding efforts at reporting cited in the yearbook were: (a) the magazine *School and Home* published under authority of the St. Louis Board of Education; (b) the illustrated weekly bulletin of the Maplewood, Missouri, schools (1935); (c) the Auburn, Indiana, plan by which students are given an opportunity to become informed about public finance; (d) illustrated leaflets of Oakland, California, giving unit cost figures accompanied by simple comparative statements; and (e) *Your Schools*, a survey report of the schools, Evansville, Indiana.

Campbell and his staff (336, 337) in New York City late in 1935 and again early in 1937 issued reports, entitled *All the Children*, similar in format to that of the *Fortune Magazine*. In transmitting the first of these, Campbell wrote: "With a view toward making the report more attractive and more readable, and of greater interest to parents, we have used an entirely different format and included scores of photographs, charts, and easily understandable tables. Instead of trying to cover every activity in detail, we have selected for discussion in the main volume of the report some of the vital problems facing the school system: individuation of instruction; truancy, delinquency, and crime prevention; the building shortage; and other problems.

"One of our most important functions is to keep the public informed of what we are doing and it is hoped that this report with its illustrative material will help begin in the performance of this function."

Kersey and his staff at Los Angeles (322) issued a profusely illustrated 11 x 14 inch report of 160 pages, entitled *Your Children and Their Schools*. The report contained some 200 highly artistic and informative halftone illustrations and a number of charts and graphs. Financial aspects of the school problem were reported in six pages of striking illustrations and terse statements. Included in these were an 8½ x 11 inch photograph of a statement in a reader's hands showing the cost of educating a child for one day, a page each to two pie graphs showing the sources of the school dollar and its disposition, and three pages of tabular matter in large type and well leaded.

Kersey, aided by Howell (320), also issued a 3½ x 6 inch pamphlet of 27 pages of important financial facts concerning the Los Angeles schools. Comparative tables and graphs of significant financial facts and budget summaries supplemented by brief interpretative statements were shown. The report was designed "to meet the needs of laymen and those of the profession who are desirous of obtaining figures on school costs and other statistical information in a brief and concise form."

A third publication of the Los Angeles schools, *Tentative Budget 1937-1938* (321), was issued in the form of an attractively illustrated booklet of 20 pages in 8½ x 11 inch size. Among its features were a full page chart of the child's bill for one day of schooling, and halftone illustrations and statements under the caption "A Glimpse of What 62¢ a Day Will Buy for the Children of Los Angeles," followed by graphs and tabular statements bearing upon the major functional divisions of the budget.

A similar form of budget report has been published and circulated in quantities sufficient to reach 10 to 20 percent of the population by the Rochester Board of Education (304, 342) for a number of years. Photographic samplings of the educational program and accompanying statements set in 12-point type, white-on-black letter charts, tabular statements, and graphs of the significant facts are among the features of this report.

Potter at Milwaukee (325) issued an illustrated report on financing the schools in catechetical format for the purpose, as he stated, "to present the more important and pertinent facts concerning our school finances as clearly and concisely as possible in order that the citizens of Milwaukee may judge for themselves, for they are our judges and their final decisions will govern our administration." Among typical questions printed in bold face type and answered were: In what ways have the burdens of the schools been increased during the present economic depression? How has the increase in the proportion of the population attending school in the senior high-school grades affected school expenditures? What bearing on the division of the local tax revenues for various local governmental purposes has the fact that the schools now enrol a larger proportion of the total population?

Unusual efforts at financial reporting cited by De Young (310) were: the practice of several New York cities in printing the budget on the back of tax receipts; brief, pointed pamphlets issued by the Baltimore, Maryland, the Grosse Pointe, Michigan, the Rockford, Illinois, and the Shorewood, Wisconsin, schools; the issue of 150,000 copies of the *Detroit Educational News* for January 31, 1935, captioned, "Dollars and Sense of Education"; and the printing in the *Pontiac Press* of the Pontiac, Michigan, school budget and accompanying explanatory matter.

Among other noteworthy contributions to the field of financial reporting have been the several numbers of the *Research Bulletin* of the National Education Association (331, 332, 333). The bulletins provide a storehouse of ready information, carefully interpreted, bearing upon problems of local, state, and national school finance.

CHAPTER VIII

Salary Scheduling¹

J. HAROLD GOLDTHORPE

THIS SUBJECT was treated in the June 1937 number of the *Review of Educational Research* on Teacher Personnel. Since that time there have appeared only a small number of studies of a research character, but there have been a larger number of general articles. There are included here also a number of studies in the field of general government service.

Educational Salaries

Elsbree presented a number of papers concerned with various aspects of the salary schedule problem (355, 356), as well as reports of field studies for two cities in metropolitan areas (352, 353). He discussed the recent major changes in scheduling practices concerning the arrangement, number, and size of increments, the four general procedures in developing new salary schedules, the question of family allowances for married teachers with dependents, and called attention to the relationship of revised schedules to a modernized system of state aid and the tax revenue structure.

Detailed and comprehensive studies of the salaries of school employees of the boards of education of New Rochelle, New York (353), and Greenwich, Connecticut (352), have been completed. The New Rochelle study was prompted by a survey made at the request of the local board by the New York State Education Department which analyzed the basic problem giving incidence to the Elsbree salary study (364). These surveys utilized the questionnaire approach, in analyzing the cost of living of teachers, comparative salaries paid by neighboring communities, and the community's ability to carry the proposed schedules. Elsbree (353) recommended new schedules of the single-preparation type, with three and four training levels, and with twelve to twenty annual steps with increments of \$50 to \$150. He also considered the general principles of schedule-making, the cost of proposed schedules, and the transfer of the present teaching staff to the new schedules.

The trend of New York State teachers' salaries during the depression is presented in a study of the New York State Teachers Association (365). Public school salaries for the year 1935-36 are presented separately for the New York City metropolitan area, six upstate metropolitan areas, other upstate cities and villages, and for the schools in the supervisory districts. The influence of the relatively high salary scales in the New York City area is indicated by the 1935-36 median salary of \$3,226 as compared with the median salary of \$1,647 for the balance of the state.

¹ Bibliography for this chapter begins on page 204.

Government Salaries

A treatment of salary schedule policies in the government services was presented by Mosher and Kingsley (363). This book summarized the field of government personnel, and presented material on prevailing practices in public service wage policies, and on criteria for salary scales which will attract and retain satisfactory personnel without undue tax burdens. The treatise also dealt with the trend of public wages, factors in the determination of general wage levels, maintenance allowances, wage differentials, and the installation of new schedules.

Another general discussion of the principles and practices of public salary scheduling was presented by Wilmerding (372) of the Commission of Inquiry on Public Personnel. He reviewed the arguments in favor of the two general wage standards, "the ethical wage" and "the going wage." He was opposed to family allowances, but recommended a cost-of-living bonus, and proposed a plan of salaries for the federal service in three divisions—clerical, executive, and administrative—ranging from \$760 to \$20,000.

Salary schedules in the federal service—The most comprehensive and detailed studies of the personnel problem of the federal government are contained in the reports of the Personnel Classification Board (357, 369, 370). These studies were based on 104,000 federal, non-postal, employees. Several chapters are especially concerned with the factors of wage determination and the recommended salary schedules. These reports analyzed the basic principles and factors concerned with schedule construction, presented a comparison of salary schedules for the various services, and recommended rates for three additional services. The effect of salary differentials was analyzed, but because of administrative difficulties, a recommendation was made against the installation of a system of differentials.

In comparing salaries for corresponding positions for non-governmental services, the reports pointed out that the salary rates in federal positions paying below \$2,000 were better than those in non-governmental services, but that in the professional and scientific services, industry and business pay more. Salaries paid to major executives by private concerns were shown in general to be from 100 to 500 percent higher than those paid by the federal government. In general the civil service requirements for federal services are more exacting than entrance requirements of non-governmental services. On the basis of findings, the Board recommended the introduction of new salary scales with semiautomatic increments, and the addition of three new services.

The study by Feldman (357) is an analysis and appraisal of the Personnel Classification Board's work. Part 1 is concerned with the problems of salary policy, and Part 2 with the problems of personnel selection, promotion, organization, and group representation. In the first part Feldman considered the basic economic principles underlying salary scales, the use of the cost of living standard, family allowances, the application of mini-

mum wages, geographical differentials, relationship to the price level, use of the merit system, and promotion standards.

The Tennessee Valley Authority (368) prepared its salary schedule largely upon the pattern of the federal classified service. This schedule has twenty salary gradations for six services, with entrance rates varying from \$840 to \$9,500, and with the increments ranging from \$150 to \$500. The Authority also published a statement of its criteria for satisfactory service and the duties of its review board, together with the details of its appeal procedure.

The most recent treatment of federal salary schedules is contained in a report of the President's Committee on Administrative Management (366, 367). These reports reiterated the major recommendations of the Personnel Classification Board and the Commission of Inquiry of Public Service Personnel, relative to higher salaries for heads, undersecretaries, and assistant secretaries of the executive departments, and for the highest grades of career and classified services. The Committee urged further extension of the work of the Classification Board to include additional departmental positions and certain positions in governmental corporations and temporary agencies.

State and local salary policies—There is a wealth of material on salary standardization and classification of positions in the bibliography by Greer (359). The League of Virginia Municipalities (361) presented a comparative study on the cost of living, housing, and family status of 3,280 municipal employees of that state for the year 1931-32. It compared minimum health and decency budgets for the major items of the household budget: food, clothing, housing, fuel and light, sundries, and total family expenditures, for several employee groups. It was the conclusion of this report that over half of these employees received compensations less than the amounts of the minimum health and decency budgets.

An effort to adjust salaries to changes in the price level was reported by Herbert (360). He reported ten years of experience of the city of St. Paul, in adjusting annually the salaries of civil service employees in accordance with the cost of living changes as indicated by the use of Bureau of Labor Statistics index figures. During this period there were two upward adjustments, totaling three points, and four downward adjustments, with a total of sixteen points. His conclusions in support of this unique experiment were: that it maintained a constant purchasing power of the employees; that it survived the "acid test of substantial downward revisions"; that it eliminated the periodic bickering associated with salary revision efforts; and that it was fair to all parties.

An attempt to deal with the problem of salary schedules of state employees was made by New York State in the passage, June 1937, of the so-called "Feld-Hamilton Career Act." The Act itself established classes of services and salary grades for the entire state classified service excepting positions in the exempt and labor classifications. This law also provided for

a temporary salary standardization board to place all pertinent state positions into the proper grades and classes set up in the Act.

Eleven major services were established with annual minimum and maximum salaries between \$700 and \$11,000 plus. This schedule provides for five or six annual increments of from \$100 to \$400, for three to eight grades, within each service. The law also mandates the classification of all new positions in accordance with the provisions of the Act. At this writing the temporary salary standardization board has finished its work and the current executive budget provides for the detailed application of the Act and the board's allocations in terms of recommended appropriations. It is estimated that over 90 percent of the state employees embraced within the provisions of the Act will receive increments during the first year of its application. This Act, the report of the salary standardization board (not yet published), and the executive budget for 1938-39 are well worth careful study by all those contemplating research in this area.

CHAPTER IX

Insurance, Purchasing, and Stores Management¹

JOHN GUY FOWLKES

Insurance

STUDIES dealing with school insurance problems during the period 1935-37 are not numerous, but for those which have appeared the central theme seems to be that any school insurance program ought to be organized on a businesslike plan. A complete appraisal of school property is stressed more than any other factor. The excellent description of the school insurance program of Norfolk, Nebraska, by Burkhardt (377) should indicate to other school districts what can be done in this matter. He reported a reduction of 70 percent in insurance costs during a five-year period. The initial approach to the reduction was a complete appraisal of buildings and equipment. Burkhardt listed six factors which made possible such marked savings: (a) reducing the amount of insurance on many old buildings; (b) changing the classification of much of the equipment to buildings; (c) making rate adjustments by remedying certain little defects; (d) purchasing the insurance on a five-year basis at the cost of four years, with a one-fifth premium due each year; (e) being alert to take advantage of general rate reductions; and (f) using 80 percent coinsurance.

It was also shown how Montclair, New Jersey, has improved its school insurance program by putting it on a businesslike plan, starting with "an annual appraisal based on current values" (393). Other changes were achieved by writing five-year insurance with one-fifth of the total insurance expiring annually, and after an examination in order to comply fully with the rules and regulations of the Schedule Rating Office. The result of such changes reduced the annual average from .247 to .116. Besides the financial saving effected, an appraisal is of no little importance in leaving with the board a complete survey of school property including insurance rates for each building.

Baldwin (373) also stressed the importance of an appraisal of the school property. His explanation of the terms "provable appraisal," "value of a building," and "coinsurance," were very clear. He stressed the need of provable appraisals particularly with coinsurance, in that as values fluctuate the insurance must change or the value of the insurance for protection purposes will suffer. Additional arguments given for having an appraisal are that the cost of one is usually less than one half of 1 percent of the cost of a new building and it is only necessary once.

Another report made by a schoolboard told how study of the insurance problem meant returns in the form of reduced costs, greater safety for

¹ Bibliography for this chapter begins on page 205.

children and teachers, and assurance of a fully protected school plant (392).

Jenkins (383) supplied valuable information telling how expenditures for insurance can be reduced. This study advised against the dangers of overinsurance and emphasized again that maximum coverage should be based on careful appraisal. A list of factors causing increased insurance rates is given which is of importance in analyzing one's insurance plan. Of interest also is Jenkins' advice on the type of policy carried. He recommended the use of a single-schedule policy because of (a) the tendency of such a policy to eliminate many errors and expirations, (b) the convenience of dealing with one agent and one company, and (c) the fact that a single policy gives inspections, and usually better rates.

Joyner (384) wrote on the distribution of school insurance to local agencies. His study advised how to gather data regarding agencies and in this respect advocated the use of an insurance questionnaire. Joyner also listed bases for the selection of eligible agencies and how to determine the amount of insurance that should be given an agency. Caddey (378) described the present insurance plan of Tacoma, telling of appraisal value, the average rate over a five-year period, and the selection of insurance companies.

Werner (396, 397) dealt with the problem of state insurance for schools. He pointed to South Carolina, Wisconsin, and North Dakota as having successful state insurance for schools, while sixteen states require that school property be insured. He advocated that school insurance be mandatory for all, with the state, and with a state fund similar to that of Wisconsin.

Purchasing, and Stores Management

The two administrative problems of purchasing and stores management are closely related, and as no studies were reviewed which dealt solely with stores management, these two topics are being reviewed together. There are two excellent studies of the methods employed in large cities for the purchasing and the handling of supplies. One, by Reagle (390), described the organization at Montclair, New Jersey, where the superintendent begins in November to get information on the budget requests for the next year, and the purchase of supplies is completed the following May, by authorization of the board after bids on materials have been received. The author listed five advantages of the procedure followed at Montclair: (a) the education staff is responsible; (b) there is equal division of money for all children; (c) the control is financial, not an item control; (d) the principal of a school settles the division of money in his building; and (e) every school and department has to stay within its budget limits.

The second study was by Councell (380) and described the method of handling the purchasing and supplies in East Cleveland. A large central warehouse is used not only for supplies but for the maintenance depart-

ment—tool room, garage, and general storage space. In this system requisitions for supplies come to the superintendent in May, the store clerk completes his inventory in June, and new materials needed are secured by the use of competitive bids. An interesting feature of the accounting system is the visible card file, located in the warehouse, in which each item has one card for receipt and one for disbursement, giving the stock on hand at all times.

Young (398) told of a plan of cooperative buying carried out in a section of Colorado where all districts of a certain valley advertise for bids, and order, jointly. There are large savings through buying in quantity—often in carload lots. Several districts estimated savings of 30 percent of the cost. It is questionable whether this method can be applied generally.

Cheney (379) described four points to keep in mind in buying equipment for a new building. Belding (375) argued for greater expenditures for texts, pointing out that a saving in books is a "misplaced economy" as only 2 percent of the average school budget goes for this purpose. Also he pointed out that even an increase of only 1 percent would yield big returns in better classroom morale and greater effectiveness in teaching. Rogers (391) described how the Chicago schools administer the budgeting, purchase, and repair of textbooks.

Brown and Byall (376) stressed rigid specifications in purchasing, so that substitution of inferior supplies is impossible. The authors gave four methods of buying supplies and equipment and gave a summary list of specifications for general supplies. They also believed that further study should be made of the problem of testing comparative qualities of the various articles to be purchased. This question of testing materials to be purchased was studied by Behrens (374) in the Berkeley High School. Here the school had laboratory facilities to make the necessary tests, so it was possible to have valuable cooperation between the purchasing department and the high-school laboratory.

Linn's report (385) was a severe criticism of high pressure salesmen, with flowery adjectives, who sell janitors' supplies at inflated prices. He revealed the secrets behind ordinary supplies, and gave useful home formulas for the same articles that would mean savings of several hundred percent. This study should make those in charge of purchasing supplies conscious of the need for careful consideration. Marshall (388) also presented views on the influence exerted by salesmen on the purchase of janitorial supplies. This study supplied standards for the selection of janitorial supplies.

A list of thirty-six principles adopted by the Committee on Supply Research, National Association of Public School Business Officials, although adopted several years ago, is reprinted because of its importance (394).

Hibbert (381) believed that educational aims should influence the selection of equipment and supplies, and dealt with (a) the responsibility for selection, (b) the criteria for selection, (c) the determination of which re-

quests should be approved, and (d) the determination of the proper firm from whom purchases should be made.

The basis for school purchasing in smaller school districts is described by McClinton (386), covering policy, specifications, and bidding. Nancarrow (389) listed standards for the purchase and selection of school jewelry.

According to Tolmie (395) a saving of from 10 to 30 percent in fuel costs was made through the use of stokers in the Rockford schools. Savings in labor costs, and more healthful room conditions, resulting from the installation of stokers are also discussed. The city of Ottawa employs the contract method in all coal purchases, specifying quality, price, and results (382). Of interest are the rights reserved by the board of education in its acceptance of fuel deliveries and of the standards that must be fulfilled. McCullough (387) dealt with the purchase of coal for small communities. In general this article closely parallels the Ottawa method of fuel purchasing.

CHAPTER X

The Support of Education: Federal, State, and Local Funding¹

JOHN GUY FOWLKES AND W. W. THEISEN
WITH THE ASSISTANCE OF

HAROLD BRANDENHOFF AND RUEBEN P. HEUER

CERTAIN ASPECTS OF THE PROBLEM of school support were treated in Chapters I, II, and III of this issue. The treatment here will follow the problem into greater detail.

Outstanding in the finance literature of 1935, 1936, and 1937 is an increased interest in formulating and executing a more adequate and equitable plan of financial support of public education (405, 408, 410, 412, 415, 420, 429, 437, 445, 452, 453, 461, 473). Research in this area recently has progressed generally in two directions: (a) toward the study of increased federal appropriations—the significance such funds may have on educational processes, and proper bases for the allocation and distribution of any such monies; and (b) toward increasing and improving individual state support, and the better distribution of state funds.

More and more during recent years local communities suffering from financial distress have turned to their respective states for help. Individual states, and particularly those states in which economic conditions would not allow necessary help to distressed localities, have in turn looked to the federal government for financial assistance necessary to meet the situation (408, 412, 415, 420, 425, 431, 444, 445, 446, 447, 452, 461, 463, 478).

The recent marked attention given to the possibilities of further federal support of public education has probably come about in part because of the financial underwriting by the national government of many essential services which local and state units of government have largely been unable to assume (401, 421, 438, 455).

History of Federal Support

Several studies have appeared dealing with the history of federal support. Givens' study (429) is probably the most complete and up to date in giving a history of federal grants up to the Civil War and the numerous grants since that time. His explanation of growing federal support is on the basis of population mobility, unequal ratio of children to wealth, and the inability of the states to meet the cost of public education. The history of federal support is traced by Mort (445) beginning with the Ordinance of 1787 in order to establish the setting for his plan of federal support.

¹ Bibliography for this chapter begins on page 206.

Hamlin's study (431) is valuable so far as it gives some basic principles governing a program for future utilization of federal funds. Mort (444, 445) has traced all forms of federal support.

Both McPherson (442) and Edwards (424) have traced the history of federal support from the Constitution down to the present, with attention directed mainly to the question of federal control. They arrive at different conclusions regarding theories of control.

Establishing the Principle of Federal Support

Federal support of public education has been increased during 1935, 1936, and 1937 through the Civil Works Administration, the Public Works Administration, the National Youth Administration (401), and by recent grants to vocational education (424, 428, 430, 431, 460). In addition to pointing out differences in the ability of states to support an educational program, Mort (444, 445) presented basic arguments for federal participation in the financial support of education. Two fundamental principles underlying any federal program are offered: (a) the equalization principle; and (b) the efficiency principle. The author pointed out that in order to place his plan into practical application, it would be necessary to determine objective measures of educational need and of financial ability among the states.

Cyr, Burke, and Mort (420) presented the problem of school support in a form which can be readily understood and assimilated by the layman as well as the professional worker. It attempted to give facts and principles related to the following questions: (a) What are the problems of paying for our educational program? (b) Why should we invest money in our public schools? (c) How can we revise our present educational system in order to provide equality for both opportunity and the burden of support? (d) Can local initiative be preserved if state and federal funds are supplied? (e) What can be done to correct our present school finance systems? (f) Where is financial support coming from?

Most of the studies dealing with the question of federal support for education have been of a given pattern, showing how economic conditions have caused present-day gross inequalities in supporting what is sometimes described as a necessity program of education (406, 409, 411, 412, 413, 414, 418, 422, 425, 426, 430, 432, 444, 445, 452).

Among such studies, Lundeen (440) pointed out how a combination of increased enrolments, decreased revenues, cuts in salary, poor and inadequate housing conditions, huge school district debts, increased teacher loads, and curriculum eliminations have created problems in the schools that the states themselves are unable to remedy because of their financial condition. Even though such a status of affairs was precipitated by unstable economic conditions, Lundeen indicated that the problems were in existence previous to the "depression era" and thus he argued there must be developed a sound program of permanent federal support which will assure at least a minimum educational opportunity for all.

Givens (429) and Eells (425) suggested that the great mobility of our population of today is another sound reason for further federal financial support of education. Eells stated that California, although ranking high in the ability to finance public education, is in favor of federal support because 43 percent of the population of the state have been born, and were probably educated, in other states.

Federal Support and Federal Control

With the advancement of reasons and programs for federal support there has appeared considerable conjecture regarding federal control of our educational system. Educational control has been strongly vested in individual localities. To a very great extent, local units have been opposed to financial subsidies, largely because the opinion has been that if funds are supplied by larger units of government, control of educational programs and policies would, to a considerable degree, pass into the hands of those who control the purse strings. This principle has probably served to keep in abeyance any pronounced swing of public opinion to federal support until economic conditions have forced such a concept.

Much has been written regarding this issue. The consensus seems to be in favor of no federal control; yet it is an issue far from being settled either as to detail or principle. Judd, Coffman, and Mort (435) presented three separate views on this question. Judd, while not directly favoring strict federal control, implied a strong measure of such control in suggesting a federal commission that would have power to allocate federal funds for equalization. Coffman criticized federal control as it has increased with the years and cites the NYA grants, and others, to support his contention that federal control is unfavorable to proper equalization of funds according to the principle of need. He stressed the suggestions of the National Advisory Council in Education of 1931. Mort would have the whole question of federal support determined objectively on a mathematical basis. According to his theory no federal control would be allowed. The only control suggested by Mort would be through a report made to Congress and the nation, of the use that had been made of any federal funds. Mort (444) pointed out that among the dangers of federal support, is federal control, and that funds must be distributed on a mathematical basis, we must feed local initiative, and there must be no compliance provisions. Chambers (408) argued for federal support but believed that federal control is unnecessary. He brought out the point that the \$300,000,000 proposed by the Harrison-Fletcher Bill has no controls attached except for two general requirements: (a) there be at least 160 days of school; and (b) as much money be spent by the state and local units each year as was expended in 1934.

Givens (429) termed the cry of federal control just a "flimsy excuse." This author traced historically federal support down to the Harrison-Fletcher Bill, and attempted to show that such financial participation has not offended the issue of federal control to any marked degree. Hamlin

(431) advocated some federal control to accompany any substantial program of federal support. His program for future use of federal funds recommended a limited control of funds and then proposed to let the individual states determine their specific educational programs. He justified a measure of control on the basis of reducing waste and misuse of funds. Bolton (405) showed that federal control must be avoided but his recommendations lead one to believe that federal control would be strengthened if carried out. Bolton suggested a five or seven member committee appointed by the President to administer federal support. Richmond (465) and Lundeen (440), while not primarily dealing with the central issue of federal support, expressed themselves as opposed to federal control.

Thompson (473) argued, by implication at least, that in order to make certain that federal support is used where intended, the federal government will have to specify explicitly certain provisions. His study, which concerns itself primarily with the question of insuring that the Negro receives his share of support, is interesting in the face of the numerous ones against any degree of federal control. McPherson (442) opposed the principle of federal support because of the dangers of undesirable supervision and control, citing the Indian schools as an instance of the influence of politics. In studying the historical development of federal control Edwards (424) made the interesting conclusion, based on inequalities that exist between white and Negro education in the South, that equal educational opportunity is impossible where decentralized control exists.

The Ability, Effort, and Need of States

The Research Division of the National Education Association (446) presented data showing the disparity in the ability of states to support public education. This study utilized the more recent research on the subject. Among other findings the bulletin said that the poorer states are exerting more effort in proportion to their resources than the more wealthy states. Reasons are advanced for school support by the federal government.

A subsequent study by this agency (448) revealed that the federal government spends less for education than for any other governmental function. The total federal aid for education in the states, both regular and emergency, in 1933-34 comprised only about 1 percent of total federal expenditures for all purposes. The portion of national income spent for public schools and colleges in 1934 was found to represent 3.87 percent of the national income. The percent of income spent for all public education varied by states from 7.14 percent in South Dakota to 2.90 percent in Connecticut. Educational expenditures per \$100 of wealth varied from \$1.20 in California to 48 cents in South Dakota. Investment in public school property represented 3.13 percent of the national wealth, as compared with an investment of about 55 percent for all types of real estate and improvements.

A formula was proposed for the measurement of the efforts of the states to support education, based upon the relation of the expenditures of the

states for current expenses of education to the relative tax resources of the states. A formula was also proposed for the measurement of the adequacy of financial support, based upon expenditures for current costs of education per unit of educational need as determined from Mort's index. On the basis of Chism's data (413), it was found that some states put forth more than twice as much effort as others. On the basis of Newcomer's data (450), range in the effort among states was still wider. A wide range was also found among states in the relative adequacy of financial support. No significant relationship was found between effort and adequacy. A significant low negative relationship was found between effort and ability, with the exception of 1930 where on the basis of Newcomer's data there was a negative correlation of .77. A rather high positive relationship between ability and adequacy was found. It was discovered that many of the states, even if they put forth relatively great effort, could not provide a national defensive minimum program of financial support and that in some states practically all the tax resources would be needed for education.

Chism (413) sought "to measure the economic ability of the several states to raise tax revenue under a system of state and local taxation based on the Model Tax Plan of the Committee of the National Tax Association and to determine their relative ability to support education." Among the findings were: that the group of six states most able to support education have approximately four times the ability of the group of six least able states; that the relative ability of the states to support education appeared relatively permanent during the period 1922-32; that one state, Mississippi, would need to spend all of its revenues for education in order to finance a program of public elementary and secondary education at an average level of expenditures; that five others would need to spend from 70 to 90 percent; and that thirteen would need to spend more than any of the forty-eight states actually spent.

From the facts discovered it appeared that a considerable number of states could not "finance their schools at a level of expenditure equivalent to the average for the country as a whole, even though they adopt modern systems of taxes, levy these taxes at substantial rates, and allocate a proper portion of tax revenue to the support of schools." He concluded that "there is need for extensive study to discover what relationships exist between the differences in abilities of the states to support education and the differences in the adequacy of the financial support which has been, and which probably will be, provided for public education by the several states. The social implications resulting from further investigation of this question will probably be of great importance."

Newcomer (450) developed an index of the relative taxpaying ability of the different states based on 1930. She computed the yield of six selected taxes: business income, personal income, real estate, corporation organization, stock transfer and severance, in six selected states. Her findings and methods were drawn upon in the studies of Norton and Norton (452) and of Mort (445).

Ashby (446) studied the efforts of states to support education. For purposes of the study, effort was defined as the ratio of the amount expended by a state for current expenses for schools to its financial resources. On the whole, states with less than average ability, he found, put forth greater effort to support schools than those with more than average ability. Correlations between ability and effort were negative.

Norton and Norton (452) studied the relation of the ability and effort of the states to finance education, to the adequacy of the financial support provided. An index of economic resources based upon ten economic items suggested by the Newcomer investigation was developed. The resources of each state were reduced to a percent basis, counting as 100 the total for the United States as a whole for the ten weighted economic items. These included: (a) income reported for federal income tax, (b) farm cash income, (c) value of farm real estate, (d) factory wage-earners, (e) value added by manufacture, (f) motor vehicle registrations, (g) production of electric power, (h) bank resources, (i) petroleum and natural gas production, and (j) stock transfers. The figures thus obtained for each state were averaged with those developed by Chism (413), and those resulting from Newcomer's estimates of yields from business income, personal income, and real estate (450).

The relative ability of the various states to finance education was then determined by dividing the figure representing the composite index of ability for each state by the relative educational burden of each. Three separate measures of educational burden, children aged from five to seventeen years, average daily attendance, and units of educational need as determined from Ashby's data and the Mort technic, were employed.

In measuring the relative effort of the various states, effort was computed on the basis of the ratio of current expenditures for education to weighted economic resources and to revenue available as determined by Chism. To determine the adequacy of support the expenditures for current expense per unit of educational need were computed. The relative adequacy of educational support for each state was then calculated, the ability of the nation to support education being given a value of 1.00.

The authors concluded that wide differences in the level of financial support provided education in different states are almost wholly the outcome of wide differences in the ability to finance education. The disparities in financial support are not primarily due to the failure of some states to make proper effort to finance schools. States providing the least adequate support, as a group, are making greater effort than those providing the most adequate financial support. The gross inequalities in financial provision for the support of education grow out of fundamental differences in economic resources and any attempt to achieve greater equalization must take account of this fundamental fact.

This subject is continued under the following head.

The Mort Report on Federal Support

Mort (445) reported an investigation, based on a series of researches carried on under his direction, for the purpose of determining educational need and the relative ability of the states to support schools as these factors may bear upon the question of the advisability of providing federal aid for equalizing educational opportunity. Indexes of educational need and relative ability were developed. Pupil-teacher ratios were applied to attendance data in each state in accordance with the plan developed by the National Survey of School Finance for use within states. Corrections were made to make possible a fair comparison among states. The data available for thirty-one states were carefully rechecked to determine the total measure of need for the individual states. Adjustments were made for differences in school organization practices in order to offset such bias as that which results when large and small one-room rural schools are counted as equivalent. Corrections were made also for differences in transportation costs and in relative support for secondary and elementary schools. The total need of each state was then expressed in terms of the ratio of its actual total number of weighted elementary classroom units to the number of such units if all were in large urban areas with classes of optimum size and no transportation required. While not claiming complete validity for the resulting index the author found that it eliminates gross differences among states arising solely from differences in population and that it is applicable to small areas within states.

Since the use of such an index would require the determining of need in the individual districts in a state to obtain a state's total and would, therefore, be administratively cumbersome, a simplified, or predictive index was developed. This was done by correcting the index for sparsity of population in rural areas. Methods were developed by which corrections may be made for variations in cost of living among states. Mort regarded the resulting measure of need sufficiently reliable that national policy may be built upon it without the granting of discretionary powers to a national authority. He found the relationships of the basic elements employed in the measure of need sufficiently constant to be used for a long period of time.

Ability of the states to raise taxes under the best devisable tax system was used as a criterion of ability to support education. The yield of six selected taxes, estimated by Newcomer (450), was used as an index of taxing ability. These taxes included personal income, real estate, severance, business income, corporation organization, and stock transfer. The relative rank of each state, and the percent of the total of each tax which could be raised from each state, were computed. A formula was then developed for approximating the relative taxpaying ability of the states based upon ten measures of ability—percent of urban population; per capita value added by manufacture; farm cash income per farm inhabitant; per capita postal

receipts; per capita retail trade—net sales; per capita motor vehicle registrations; per capita values of incomes from \$5,000 to \$25,000; per capita value of incomes of \$25,000 and over; total population; and corporate organization tax.

Mort (445) also arrived at what he termed a defensible foundation program for the schools of the nation. The method followed was "to select, from the thirty states for which data were available, those communities which have the same ability to support schools as the average community in the country would have should the present defects in state tax systems be remedied. The experience of these communities is taken as an index of what could be established as a national foundation program if the financial houses of the states were put in order and if the federal government were to assume the responsibility for equalizing the burden of education among states." The cost of a foundation program in a state was found by multiplying the number of weighted elementary units by the cost per weighted pupil unit for communities of average wealth when the latter was corrected for cost of living. The corrected pupil unit cost was found to be \$60.

The relative merits of two plans for federal support were considered, the one a *large fund* or complete plan of federal support whereby the national government would bear the full cost of the foundation program, and the other a *small fund* plan in which the federal government would provide only sufficient support to enable all states to offer a foundation program equal to that provided by the wealthiest states. The federal government would contribute the difference between the cost of a foundation program and the amount which a state's own state and local taxes would provide when these taxes are levied in accordance with the state's real ability to tax itself per unit of educational need. The total of the difference in federal aid required under the two plans was found to be \$829,000,000. The large fund plan would involve a transfer of the tax collection function of many taxes to the federal government. Excess funds above the national equalization program, or \$829,000,000, would be returned to the states from which they were collected in proportion to the ability to pay. The author recommended that plans developed for immediate steps be made in terms of a fifty-fifty combination of the large and small fund plans. Support of a full foundation program of \$60 per elementary pupil unit is not recommended as an immediate step but as a goal to be attained in the course of a period of years. A modified plan beginning at \$15 per pupil unit is recommended as a beginning step, for the reasons that it considers the needs of the poorest states and at the same time makes possible a general forward movement in all the states considering differences in ability. It would tend to avoid the danger of giving more funds to poorer states than can profitably be used.

An editorial comment in the *Elementary School Journal* (461) expressed doubt as to whether Mort's plan goes far enough, saying that it does not provide sufficient support where the load is greatest and the financial ability is lowest.

Federal Support for School Buildings

Weller (477, 478) made two analyses of the relation of federal aid to school building. He showed that Delaware in 1927 financed all school building programs in the state. Other states, such as Arkansas, Minnesota, Ohio, Rhode Island, and Wisconsin, have granted limited aid for both urban and rural schools, whereas Alabama, Missouri, New York, Oklahoma, and South Carolina have helped only rural schools. Indicating how federal aid had come to the foreground in 1933 because of the lag in schoolhouse construction and the need of some form of unemployment relief, he pointed out the growing opinion which sees education as a matter of national concern. He argued against the present basis of federal aid for building construction and suggested that a sound federal finance plan would include an equalization principle with minimum school building standards and some means of encouraging local initiative. Weller's second study gave a description of the inadequacy of present buildings and reiterated the principles of federal participation.

Polakov (459) showed the expenditure that would be needed to bring buildings up to modern standards, or to "catch up" in schoolhouse construction. Expenditures for needed school building, he found, would total over five billion dollars. Mort (445) made no special provision for federal support in building programs, as his foundation program is for current expenses only; but he did suggest that it could be made to include capital outlay by increasing the amounts, and he favored support which would stimulate rural school consolidation. Henry (432) analyzed the federal building program under the Works Progress Administration.

Federal Support for Vocational Education

Recent studies showed that federal support for vocational education is now well established. Hamlin (431) discussed the rapid gains that have been made in vocational education in every state during the twenty years of federal support beginning with the Smith-Hughes Act of 1917. The effect of federal appropriations for vocational education on state initiative was discussed in an editorial in *School and Society* (426) which stated that the results have been wholesome. Although the states are only required to match federal appropriations for vocational education, on the average \$2.13 of state and local money was spent for every \$1.00 contributed by the federal government for vocational education in agriculture, trade and industry, and home economics.

The question of the states' matching funds contributed by the federal government is treated again in another editorial in *School and Society* (428) on the George-Deen Vocational Educational Law, which went into effect July 1, 1937. This new law, intended to take the place of the George-Ellzey Act, authorizes \$12,000,000 annually for vocational education but requires only that the states match with 50 percent at first, increasing 10

percent each year until they will have reached the dollar for dollar matching of funds in 1946. A third editorial in *School and Society* (460) presented President Roosevelt's ideas regarding the George-Deen Law. In this discussion are the President's reasons for disapproval of this bill.

Federal Support for Parochial Schools

Blakely (404) studied federal aid in relation to the support of parochial schools. He made a plea that the \$300,000,000 appropriation provided in the Harrison-Fletcher Bill be distributed for pupils regardless of race, creed, or the school attended. He expressed the belief that federal aid is permissible as long as it does not destroy state control. Mort (445), while not giving much space to the subject, suggested federal support to private and parochial schools if they are recognized by a state in the distribution of state monies to schools. An editorial in *School and Society* (462) treated the problem in New York from the standpoint of state support. Two arguments for such aid were given: (a) if religious schools were to close it would mean a big drain on the treasury to provide the needed education; and (b) that supporters of religious schools are now paying double for education.

Federal Support for Negro Education

Little research has been conducted on the problem of federal support of Negro education but Thompson (473) presented the pitfalls that well-intended legislation for federal support may contain. He pointed out that the Harrison-Fletcher Bill has loopholes that would allow southern states to fail to distribute money to the Negro and that the amendments necessary to take care of that problem are: (a) that states should be required to spend at least as much as in 1936, (b) that a printed report of disbursements of both state and federal support by race be submitted, and (c) that the word "systems" of schools be changed to "every" in the 160-day clauses.

How federal emergency aid in the form of NYA grants has benefited Negro youth by having a noticeable effect on decreasing the illiteracy of Negroes in general was shown in an editorial in the *Journal of Negro Education* (419). Mort's study (445) recommended a solution to the problem of Negro education in the South by making the foundation program for the Negro what the standard now is for the whites.

State Support for Education: Conditions and Trends

Many states have recently begun the process of smoothing out the patterns and foundations for the equalization of educational opportunity within their respective localities. Studies concerning state participation in school support have been made in many states during the last three years (403, 406, 409, 415, 418, 423, 427, 436, 437, 441, 451, 452, 453, 464, 467, 472, 476).

Chambers (410, 411) presented a picture of state legislation enacted during the year 1935 in the various states. He described the foundation

programs of state support in Ohio, Oklahoma, New Jersey, and Michigan. Other changes in special provisions for state support were noted in North Dakota, Montana, Utah, Nevada, Missouri, New Mexico, Ohio, New Jersey, Pennsylvania, Michigan, North Carolina, Texas, South Carolina, and others. In all of these instances the author pointed out that the plans of state support of public education have been improved during recent years. These two studies illustrate how state equalization programs are eventually being smoothed out in places where defects were noted and how state support is being extended.

Covert (418) showed that although state aid decreased during the period 1900-30, there has been marked increase in state support of public education since then. Now three-fourths of the states provide funds to make possible a minimum school program. Of these states, seventeen financed the program by general property taxes; ten, by income taxes; and three, by sales taxes, liquor taxes, tobacco taxes, etc. While Delaware alone in 1923-24 provided more than 50 percent of school revenues from state sources, three additional states—North Carolina, Texas, and West Virginia—did so in 1933-34. The median was found to be approximately 25 percent with extremes ranging from 93.1 percent in Delaware to 1.9 percent in Kansas. The range in local tax rates necessary for local districts to participate in equalization funds in 1933 varied from 6/10 of a mill in New York, for all but one-teacher schools, to 20 mills in Minnesota. Extreme variations in local school tax rates within a state occurred in North Carolina with a range from 21 to 86 mills.

The Research Division of the National Education Association (448) reported evidence of a trend away from local support of public schools toward a greater reliance upon state support. Local contributions were found to have declined from approximately 83 percent in 1920 and 1930 to 75 percent in 1934. Among the factors responsible were the decline in property tax revenues and inequalities in the ability of local units to support schools.

Trent (474) reported the gains in West Virginia which resulted from reorganization on a county-unit basis and distribution of state aid raised through a uniform tax rate on a pupil-teacher basis. Among these have been uniformity in tax rates throughout the state, consolidation of small schools, an improved educational program, increased high-school enrolment, reduction in the number of local districts from 398 to 55, reduction in board members from 1,500 to 275 and a corresponding reduction in administrative costs, supervision for rural teachers as well as for city teachers, reduction in the number of teachers, increased standards for teachers, lengthening of the school year to nine months for all the schools of the state, and restoration of salaries to the predepression level.

Akerly's study (399) pointed out that although states apparently are attempting to equalize educational opportunity they may actually be making conditions more unequal. Such may be the case in plans where the state or federal government offers to match certain expenditures by the

community. He pointed out that whereas wealthy districts could readily do this, the poor districts could spend very little. The author likewise pointed out how Mort's plan, as applied in New York State, has resulted in greater inequalities, particularly in regard to educational opportunity. It is interesting to note that he attributes this situation to the small local school district being the administrative unit. Burke (406) reached similar conclusions regarding the failure of minimum plans to equalize, stating that this is due to failure to recognize some extra costs such as transportation, capital outlay, legal services, and others. He would place aid for transportation on an objective basis under state control but would leave the curriculum to local control.

The effect of state aid programs on administration of the schools was studied by Viles (476) and McNeely (441), both authors showing that such aid results in changes. McNeely pointed out that a state may assume complete administrative control by designating minute subitems of use in appropriations, and may eventually impair the educational program.

Lancaster, in a book entitled *Government in Rural America* (437), described the government and administration of the rural county, township, and school district units in this country. Particularly interesting is the treatment in that part of the work dealing with state and local financial relations and with the inequalities in costs of public education in rural areas.

State Support for Education: Methods and Plans

Among typical plans for equalizing educational costs discovered by Covert (418), and reported also by Ludeman (439), were: (a) public education provided chiefly at state expense; (b) equalization above a low local tax levy, as in New York; (c) equalization above a medium tax levy, as in Maryland; (d) equalization of school costs above all other available funds, including a maximum local tax levy for schools; and (e) distribution of certain funds to guarantee teachers' salaries, as in Colorado. Ludeman listed special state aid for distressed districts as another general type. He maintained that the quality of equalization is determined by the bases upon which school funds are distributed. "These should take into account the district's ability in revenue raising, the general needs of the district in pupil units to be served, and the efforts of the district to run a good school."

An index of relative ability to support education, for use in distribution of state aid, was prepared by Cornell (416). It was found that proper weightings assigned to total population, retail sales, motor vehicle registrations, the value of farming, of manufacturing, and of mining production, the number of individual income tax returns, and postal receipts, would yield indexes of relative ability for New York counties which would agree with full property valuation better than would assessed valuation. A six-variable formula based on 51 New York counties was developed

which was found to be "unequivocally superior to assessed valuation alone in 1930." That is, if relative ability were to be determined by the formula for these counties, in 1930, the inequity would be, on the average, less than if assessed valuation had been the basis of determining relative ability. The ability index would have the added advantage over assessed valuation in that neither local nor central authorities would be able to manipulate data in such a way as to change the amounts of central funds to be paid by the state to governmental subdivisions in the support of education.

Pauly (457) reported changes made in financing of schools in Oklahoma. Distributions from a primary aid fund are based upon average daily attendance, density of population, and training of teachers. A secondary fund under the control of the state board of education is distributed on the basis of ability to pay to approximately the lower third of the schools. Other steps recommended are: (a) a minimum mill tax for all districts, (b) reorganization of districts to make them financially efficient, and (c) assessments on true value.

Overn's study (456) dealt primarily with state aid in regard to a school building program but he presented four points in a total state support program. He proposed a state policy of (a) taxation on ability to pay, (b) districts of local control large enough to include an "automobile community" and of sufficient population to furnish a twelve-grade school, (c) equalized distribution of all school income for current expenses, and (d) equalized support of the present debt and the cost of all new buildings throughout the state.

State Support for Building Programs

Hudnall (433) reported on a statewide program of school building in Delaware, where schools are constructed on a pay-as-you-go basis. Other features include: (a) limitation of bonds of local school districts to 2 percent of the 1919 assessments; (b) responsibility for paying off outstanding local bonds assumed by the state; (c) an educational program developed on the basis of school district needs; and (d) elimination of one- and two-room schools where practicable.

Moehlman (443) proposed that the state provide for all capital improvement and extension and that all credit to local districts be denied by law as a means of eliminating school debt. Freed from the incubus of heavy funded debt, the local district could devote its entire income to the more efficient administration of its current program. Since finance for new buildings would be determined by actual need and in accord with good educational designing, there would be fewer poorly placed and poorly built structures.

Overn (456) proposed a statewide pay-as-you-go policy of defraying local school building costs. All new buildings would be paid for by cash from a state fund, thus avoiding interest charges which in many instances amount to from 60 to 100 percent of the cost. Under this plan the state

would levy annually an amount for debt service and new buildings equal at least to the amount spent locally for debt service and new buildings throughout the state for the past five years. A district would be permitted to build only when it could justify its action on the grounds of service and economy. Since communities least able to do so are obliged to meet debt charges regardless of operating needs, the plan would relieve the burden at its sorest spot.

A technic for equalization of the burden of financing capital outlay and for providing minimum adequate schoolhousing for every district was developed by Weller (477,479). He determined the amount a district *could* raise annually toward an amortized cost of the number of housing (room) units needed. The difference between this sum and the total annual amortized cost of the building program represents what the state would contribute on an annual basis. The amount which would be contributed in twenty-five years is then found and paid in cash to the district. The district pays off the balance either at the uniform rate for the full period or at a heavier rate for a shorter period. Under this plan no community need pay a higher rate to provide school buildings than would the wealthiest district.

Local Support of Education

Research in the field of local support of education is, according to emerging philosophies, of most significance when related to the problem of equalizing support within the individual state. As states' abilities are entwined with a program of national participation, so to a similar degree the problem of local support is coupled with a sound, planned program of state participation. Dawson (422) made a critical and detailed analysis and evaluation of the fundamental relationships existing among three sources of support in regard to their contributions. Sears' study (466) also cut across all three phases of support for schools—local, state, and federal—and he based his suggestions on a well presented theory or philosophy of the problems and reasons underlying the entire question of free public education through the age of eighteen years for everyone.

Studies of school support in relation to local school units, such as have been conducted in the states of Ohio (453), Arkansas (403), Oklahoma (454), Arizona (402), California (407), Tennessee (472), Kentucky (436), North Carolina (451), Pennsylvania (458), and Illinois (434), are of importance. Research conducted under the direction of the United States Office of Education and the state departments of education in these states on the study of local school units will serve as bases for the determination of long-time planning programs for education. Sections in these studies devoted to such subjects as (a) the status of school finance—state and local support and indebtedness; (b) trends in financing public education; and (c) financial reorganization programs and their estimated costs are noteworthy contributions to studies of local funding of education.

Taxation and School Support

The whole problem of equalization of school support rests on the question of a satisfactory tax system. It seems imperative that professional educators become increasingly conversant with fundamental problems of taxation. This point of view is evidenced by several tax studies made by educators during the past three years. The following reviews are devoted to these studies and a few works more in the field of general taxation.

Chambers (409, 410), revealed new practices in some states of requiring minimum local tax rates and a change in sources of revenue. Michigan has established a minimum of a 2.5 mill tax for local districts before they can benefit from the new distribution act. This state is also changing the source of school monies from special allocated taxes to the general fund. Chambers showed how states vary greatly in the minimum local tax levy before equalization aid can be obtained. This variation ranges from 2.5 mills in Michigan to 30 mills in Oklahoma.

McNeely (441) pointed out that whereas most states establish annual or biennial appropriations for state aid, twelve states have special taxes for this purpose. Lundeen (440) showed how present revenue methods are inadequate and cited an increased enrolment from 4,155,350 pupils in 1929 to 6,719,000 in 1935 with a decreased revenue of from \$2,250,563,511 in 1929 to \$1,842,581,000 in 1935.

Costigan (417) showed that a federal system of taxation serves as an equalizer of wealth and of educational needs among the various states. Pulliam (463) indicated how the tremendous inequalities in the ratio of wealth per child in the various states argues for the abandonment of the two basic ideas of local support and the general property tax. He contended that raising revenue for schools through the federal government will eliminate much criticism. Dawson (422) and Richmond (465) also claimed that inequalities in ability and an inadequate tax system have made necessary increased state and federal support.

Almack (400) gave an analysis of the tactics employed by anti-tax and pro-school forces. This study should be perused carefully by anyone confronted with forces working for the reduction of taxes for public school support. Almack's faith in a well-educated public is hopeful and is a good argument for the education of our citizenry.

Chism (414) showed that thirty states have sales taxes of some form, but that the effect of a retail sales tax of 2 percent when computed for all states and combined with the ability of these states to support education as determined by the Model Tax Plan would have the effect of decreasing the range in relative ability of the states to support education. Although the range in ability to pay is narrowed, this is accomplished by imposing more taxes on those least able to pay.

Such bulletins as those issued by the Tax Policy League (468, 469, 470, 471) are of importance to students of school finance. The Twentieth Century Fund (475) presented a survey of taxation and a future program of

taxation for the nation. The intent of this research is to give to its readers an understanding of the tax system as it now functions—federal, state, and local—and to offer suggestions on how our tax structure could be improved.

The Collection and Protection of Funds

Wilkins (480) weighed the advantages and disadvantages of having school taxes collected by the municipal tax department against those of having the school taxes collected by a separate school tax department in Texas. Schools employing a separate tax department were found not only to have failed to adjust the tax income period to the school expenditure period but to have a tax year that is more poorly adjusted than that of the schools employing the city tax department. Installment collections were more frequently employed by schools employing the city tax department. Schools having a separate school tax department were more inclined to build up interim reserves but had greater tax delinquency. Short-term loans were equally employed by the two systems and there was very little difference in the rate of interest paid. Overdrafts were more common and tax collections were found to be better among those using the city tax department. The cost of collection was found to be 2.81 percent in twenty-four systems employing the municipal tax department and 3.92 percent in twenty-four comparable systems employing a school tax department. There was a tendency for cities to take over responsibility for school bonds and to exercise undesirable control of the schools in cities employing the municipal tax collection department. Bonded debts tended to be slightly larger if separate tax collection departments were employed, but there was less difficulty in obtaining ready control of school funds. The schools of both groups lost very little through bank failures because funds were safeguarded by collateral securities. Regulation and supervision of safeguarding the school funds by the state department of education were found to have had a salutary effect. Leakage of funds was found more apt to occur in the handling of cash receipts of taxes, and in reporting unpaid certain taxes which had been paid, than at any other points. A thorough annual audit was found to be essential to safeguard tax funds. Schools employing a separate tax department tended strongly to include a larger territory than the city limits.

The Finance Division of the New York State Department of Education (449) prepared a manual outlining procedures for transacting the business of the district so as to afford a maximum of protection for district funds. Devices recommended for safeguarding funds included: "(1) two separate and independent sets of records of receipts and disbursements; (2) the separation of the authority to expend moneys from the custody of these moneys; (3) publicity of the treasurer's accounts; (4) a system of financial reports both by the treasurer and the accounting officer; (5) a review of the custodian's performance by the governing body; and (6) a requirement that at least two individuals take part in the act of disbursing money."

CHAPTER XI

Summary and Forecast

ALFRED D. SIMPSON

THE COMMITTEE'S TASK has been to review research. However much one may look for new horizons, one's job on a reviewing committee is to cover the research that exists. He may comment, and he may forecast; but, if he does not find the research that he hopes for, he cannot manufacture it—at least as a member of the committee. Hence, at the end of a long canvass, the writer is inclined to comment, not only on the paucity of research in this field, but also on the disconcerting insignificance of much of it.

How research in this field compares with that in other educational fields is beyond the writer to know. But he is certain that research in finance and business administration has so far failed to answer many important questions.

The first chapter of this *Review* was designed to reveal researches in the organization of education and its administrative framework. There has been some good research in relation to administrative units—even though coming after one hundred years of need. But the basic financial implications underlying the large organization of formal education, underlying the individual school as an educational unit, underlying the curriculum, and underlying the methods or processes of education, seem not to have caused a flurry in the minds of the active researchers.

As revealed in Chapter II, there is a dearth of penetrating analyses of the cost of education as now organized. We know little, as revealed by published researches, about the variations in the cost of school units within a given system. Only recently has there been any research consideration whatsoever given to the cost attendant upon the rise of specialization in educational processes. And yet how pregnant with significance! What have the psychological revelations as to transfer of training done to school costs? What would a lay understanding of "transfer" do to the public attitude towards the funding of education?

In the fields of the support of education there have been some bright spots—particularly in studies of federal participation and in relationships between control and support. Now in their infancy, studies in the area of controls promise much—and are much needed. The fields of general public administration and finance have far outstripped educational administration in the area of financial planning. Only at a few scattered points and in embryo stages has there been any attack upon the important problem of classification in educational finance accounting. Educational reporting in general has enjoyed an unresearched pictorial renaissance—thanks prob-

ably to the stimulus of New Deal-ish planning boards—but in financial reporting there is little of either renaissance or research.

It may be possible to characterize the shortcomings of research in these fields in terms of three deficiencies. First, our research in finance and business administration, with some notable exceptions, *lacks pertinence*. That is, it does not grapple with the large problem areas in the field. For example, we have accounting studies, but they are not focused searchingly upon such problem areas as classification, cost analysis, or service to administration. We have much consideration of educational reorganization, but little coordinated research pertinent to the financial implications of change, or contributory to a well-rounded consideration of reorganization proposals. We have had practically no significant studies relating to problems of financial planning or budgeting by individual schools in order that there may be a "wholeness," a unity, to the work of the school. And, is there no challenge to finance in the problem of preserving American democracy, even to the point of finding the very seed-beds of its germs?

Second, our research, with some notable exceptions, *lacks continuity*. The projects are isolated. This is a commonly recognized ill and one that persists despite the fact that attention has been given to it. A notable exception to this lack of continuity is to be found in the studies made by graduate students and post-doctoral workers in the field of state support, following the leadership of Mort. In this important area we have a long list of studies, one after another filling in gaps or carrying the research into refinement stages. If we could have such a continued and coordinated approach to research in the other areas of finance and business administration, we would develop a more valuable product.

Third, research in finance and business administration lacks *inventiveness*. By inventiveness is meant not simply the devising of new technics, or formulas. With only an occasional exception we may trace through the whole range of topics in finance and business administration and find little that is new either in the approach to a problem or in revelation from its pursuit. When the same approaches are repeated, without improvement, the results are likely to be standard, without refinement, and meaningless in their effect upon practice. Research in certain areas is stale. The same patterns have prevailed too long. Perhaps the fault lies in the hypothesis, the real germ center of research; instead of fertile variation, we find the core of stereotyped practice.

How can we get more pertinence, more continuity, more inventiveness into research? One can only hazard a few suggestions. The *Review* itself might well afford a medium of help. A symposium might aid in locating the seeds of pertinence, continuity, inventiveness, and other desirable characteristics now too generally lacking in research in this area. We might utilize the administrator's perspective by systematically tapping it, as has never been done, for the disclosure of pertinent areas and for the honest testing of research significance.

In 1933 the National Survey of School Finance, which unfortunately died in its youth because of the depression, published a volume of *Research Problems in School Finance*. This was perhaps the most serious attempt thus far made to bring about a type of research in this field pertinent to great problem areas. In 1935 the April number of the *Review*, in a less ambitious treatment, also included a chapter, entitled "A Forecast of Future Research in Financing of Education." There is little evidence that either of these has been seriously studied or followed by prospective research workers in finance and business administration. But they still stand there, monument like, and their assimilation constitutes one of the avenues to pertinence, to continuity, to inventiveness, etc.

Sometimes an infusion of new blood helps. We have an all too small group of workers who have come really to understand finance and business administration. These workers are constantly being pulled off into administration. Finance permeates all areas of education, and in a democracy its influence is such a critical determinant of direction and of progress, that research in this area may well ask for the transfer of the ablest of personnel. Why, for example, should not research workers of proved ability turn their backs upon psychology, philosophy, curriculum, and for a time bend their energies to infuse and illuminate the field which they are all too prone to consider a retardant to their work? Perhaps they would find a clue to a new educational economy. Possibly they could prove that education, in a country's economy, is worth more than its cost. Perhaps they could become, through this avenue, an even greater blessing to posterity. Anyone who can help us towards better research in finance, and the more prosaic business administration, let him come.

"Wi sic as he, where'er he be
May I be saved or damned."

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